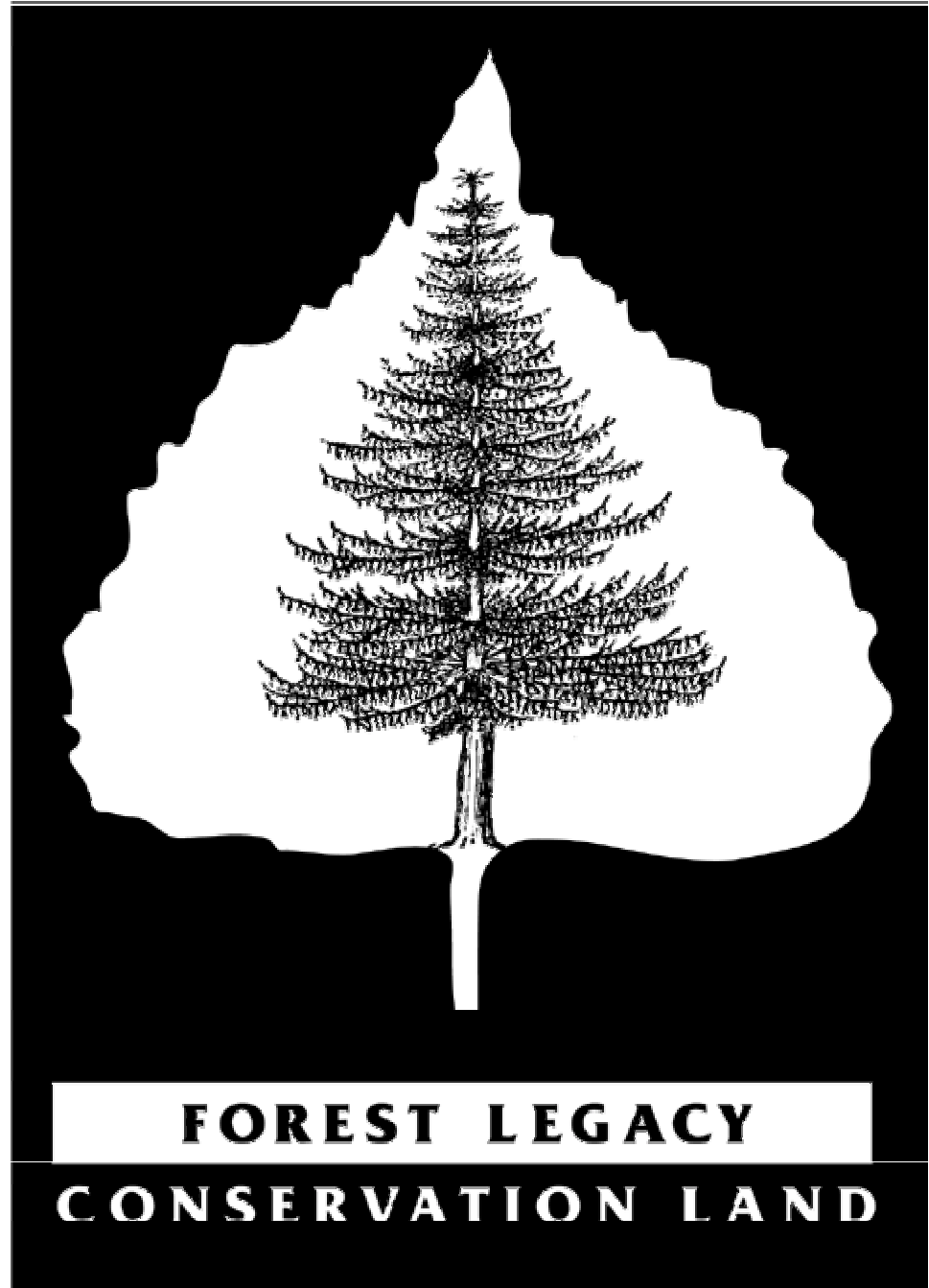


# FOREST LEGACY PROGRAM ASSESSMENT OF NEED



Kentucky's  
Forest Legacy Areas

## ACKNOWLEDGEMENTS

Hugh N. Archer, Commissioner	Kentucky Department for Natural Resources
Benjamin T. Worthington, Forest Supervisor	USDA Forest Service, Daniel Boone National Forest
Leah W. MacSwords, Director	Kentucky Division of Forestry
Steve Kull, Assistant Director	Kentucky Division of Forestry
Diana Olszowy, Branch Manager	Kentucky Division of Forestry
Mark Q. Lee, Landowner Program Specialist	Kentucky Division of Forestry
Sarah Gracey, Urban and Community Forestry Program Specialist	Kentucky Division of Forestry
Roy Boggs, Geographic Information Systems Specialist	Kentucky Division of Forestry
Glenna Smith, Secretary	Kentucky Division of Forestry
Lori White, Secretary	Kentucky Division of Forestry
Dan Figert, Assistant Director	Kentucky Department of Fish and Wildlife Resources
Brian Smith, Grassland Systems Program Coordinator	Kentucky Department of Fish and Wildlife Resources
Chris Garland, Wildlife Biologist District Manager	Kentucky Department of Fish and Wildlife Resources
Steve Coleman, Director	Kentucky Division of Conservation
Demetrio P. Zourarakis, Geographic Information Systems Specialist	Kentucky Division of Conservation
Donald S. Dott, Director	Kentucky State Nature Preserves Commission
Marc Evans, Ecologist	Kentucky State Nature Preserves Commission
James Aldrich, State Director	Kentucky Chapter of The Nature Conservancy
Jeff Sole, Director of Science and Stewardship	Kentucky Chapter of The Nature Conservancy
Julian Campbell, Inventory Coordinator Botanist	Kentucky Chapter of The Nature and Conservancy
Carey Tichenor, State Naturalist	Kentucky Department of Parks
Robert Miller	Kentucky Division of Water

# TABLE OF CONTENTS

## INTRODUCTION

## AUTHORITY

## PURPOSE OF THE FOREST LEGACY PROGRAM

## ASSESSMENT OF NEED (AON)

## EXECUTIVE SUMMARY

## KENTUCKY'S FOREST LEGACY-GOALS

## KENTUCKY FOREST RESOURCE –TRENDS AND THREATS

### Kentucky Timber-Industry Timber Product Output

## KENTUCKY'S FORESTED ECOSYSTEMS

### Mixed Mesophytic Forests

### Western Mesophytic (Oak-Hickory) Forests

### Bottomland Hardwood Forests

### Evergreen Forests

### Savanna-Woodlands

### Large Forest Block Executive Summary

### Large Forest Block Justification

### Large Forest Block Materials and Methods

### Large Forest Block Results

## KENTUCKY'S OTHER NATURAL RESOURCES

### Wildlife Resources

### Fisheries Resources

### Tourism and Forest-based Recreation

### Mineral Resources

### Soils and Soil Productivity

### Watershed Criteria

## KENTUCKY LANDOWNER AND CONSERVATION ASSISTANCE PROGRAMS

### Forest Stewardship Program

### Conservation Reserve Program

### Environmental Quality Incentives Program

### Wetlands Reserve Program

### Wildlife Habitat Incentive Program

### Kentucky Heritage Land Conservation Fund

### Kentucky Urban and Community Forestry Program

### Kentucky's Land Trust

## KENTUCKY STATE FOREST SYSTEM

### Green River State Forest-Henderson, Kentucky

### Kentonia State Forest-Harlan County, Kentucky

### Kentucky Ridge State Forest-Bell County, Kentucky

### Pennyrile State Forest-Christian, Hopkins and Caldwell Counties, Kentucky

### Tygart's State Forest-Carter County, Kentucky

## FEDERAL LAND OWNERSHIP

### Daniel Boone National Forest

### Big South Fork National River and Recreation Area

### Land Between The Lakes National Recreation Area

### Mammoth Cave National Park

**KENTUCKY'S DESIGNATED FOREST LEGACY AREAS**

Northern Region

Eastern Region

Southern Region

Western Region

**DETAILED FOREST LEGACY AREA DESCRIPTIONS**

Northern Kentucky Forest Legacy Area

Eastern Kentucky Forest Legacy Area

Southern Kentucky Forest Legacy Area

Western Kentucky Forest Legacy Area

**FOREST LEGACY PROGRAM**

POLICY AND PROCEDURE FOR CONDUCTING PUBLIC MEETINGS

**FOREST LEGACY PROGRAM AGENDA FOR ALL PUBLIC MEETINGS**

Forest Legacy Public Meeting #1

Minutes From December 2, 2002 Public Meeting

Forest Legacy Public Meeting #2

Minutes From December 3, 2002 Public Meeting

Forest Legacy Public Meeting #3

Minutes From January 14, 2003 Public Meeting

**APPENDIX 1**

Forest Legacy Program Letters of Authorization

**APPENDIX 2**

State Forest Stewardship Coordinating Committee

**APPENDIX 3**

Landowner Applications, Landowner Inspection Consent Form and Landowner  
Application Check List

**APPENDIX 4**

Forest Legacy Program Project Proposal Evaluation Form

**APPENDIX 5**

Endangered, Threatened and Special Concern Plants, Animals, and Natural  
Communities of Forest Legacy Areas

**APPENDIX 6**

Literature Cited

## LIST OF MAPS

Figure 1	Forestland Ownership in Kentucky	p.
Figure 2	Land Cover/Land Use in Kentucky	p.
Figure 3	Kentucky State Nature Preserves— Large Forest Block Data	p.
Figure 4	Kentucky Major River Basins	p.
Figure 5	Kentucky's Managed Lands	p.
Figure 6	Kentucky Forest Legacy Areas	p.

## LIST OF TABLES

Table 1	Daniel Boone National Forest— Ranger District Acreage Breakdown by Counties	p.
---------	---	----

# INTRODUCTION

## AUTHORITY

The Cooperative Forestry Assistance Act of 1978, as amended, (16 U.S.C. 2103c et seq.) provides authority for the U.S. Secretary of Agriculture to provide financial, technical, educational, and related assistance to states, communities, and private forest landowners. Section 217 of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624: 104 stat.3359), also referred to as the 1990 Farm Bill, amended the Cooperative Forestry Assistance Act and allows the U.S. Secretary of Agriculture to establish the Forest Legacy Program to protect environmentally important forest areas that are threatened by conversion to non-forested uses. This authority continues indefinitely. Through the 1996 Farm Bill (Federal Agriculture Improvement and Reform Act of 1996; Public Law 104-127); Title III - Conservation; Subtitle G - Forestry; Section 374, Optional State Grants for Forest Legacy Program), the U.S. Secretary of Agriculture is authorized, at the request of a participating State, to make a grant to the state to carry out the Forest Legacy Program in the state, including the acquisition by the State of lands and interests in lands. The Commonwealth of Kentucky has requested the State Grant Option.

The Kentucky Division of Forestry is the lead agency for the Forest Legacy Program in the Commonwealth of Kentucky (Appendix 1). The Cooperative Forestry Assistance Act directs the U.S. Secretary of Agriculture to establish eligibility criteria for the designation of Forest Legacy Areas, in consultation with the Kentucky State Forest Stewardship Coordinating Committee (Appendix 2). These criteria are developed based upon the state lead agency's Assessment of Need for establishing a State Forest Legacy Program.

## PURPOSE OF THE FOREST LEGACY PROGRAM

Since the majority of the nation's productive forestlands are in private ownership, these private landowners are facing increased pressure to convert their forestland to other uses. Greater population density and user demands are placing increased pressures on private lands to provide a wide variety of products and services including fish and wildlife habitat, aesthetic qualities, timber and recreation opportunities. However good stewardship of privately held forest lands requires a long-term commitment that can be fostered through a partnership of federal, state, and local government efforts.

In 1990, the Forest Legacy Program was one of several programs established to promote the long-term integrity of forestlands. The U.S. Secretary of Agriculture was directed to establish a Forest Legacy in cooperation with State, regional and other units of government. In carrying out this mandate, the U.S. Secretary of Agriculture is authorized to acquire lands and interests in lands in perpetuity for inclusion in the Forest Legacy Program. Landowner participation in the Forest Legacy Program, including the sale of lands and interests in lands, is entirely voluntary.

## **ASSESSMENT OF NEED (AON)**

The purpose of the AON is:

1. To document the need for a Forest Legacy Program in Kentucky;
2. To identify and delineate the boundaries of forest areas meeting the eligibility requirements for designation as Forest Legacy Areas; and
3. To recommend areas to the USDA Forest Service /US Secretary of Agriculture for inclusion into the Forest Legacy Program.

## EXECUTIVE SUMMARY

Kentucky's forests play as much a part in the state's history as Daniel Boone and other early pioneers. In Boone's time, the forest was home for wild game that existed in abundance, and the timber supplied materials for building homes and furniture. There were 25 million acres of forestland in Kentucky when settlers began establishing homesteads.

In 1870, Kentucky produced over 200 million board feet of lumber. By 1907, lumber production reached one billion board feet. Huge stands of yellow-poplar, oak, ash and maple were harvested to satisfy a growing industrial nation. Destructive logging practices and waste prevailed throughout the early lumbering days, and fire often followed logging. Trees were so plentiful that few recognized the need for conservation.

In the early 20<sup>th</sup> century, a few nationally prominent figures such as Teddy Roosevelt and Gifford Pinchot, the first chief of the USDA Forest Service, began to call attention to the need for conservation. In 1912, the Kentucky Legislature provided for establishment of a Board of Forestry which later led to the creation of the Kentucky Division of Forestry. The initial emphasis for the division was to reduce the severity of wildfires in the state. Today, the mission of the Division of Forestry encompasses the entire forest spectrum. The mission reads:

***To protect and enhance the forest resources of the Commonwealth through a public informed of the environmental and economic importance of these resources.***

This forestland provides multiple benefits to the citizens of the Commonwealth, including timber production, wildlife habitat, recreation opportunities, quality water and aesthetic beauty. The passage of the Kentucky Forest Conservation Act (KFCA) mandated that the Natural Resources and Environmental Protection Cabinet's Division of Forestry ensure healthy, sustainable forests that are ecologically sound, provide economic opportunities, and benefit the overall quality of life for all Kentuckians. The Division of Forestry promotes the sustainability of Kentucky's forest ecosystem in the Forest Stewardship Program. The Division of Forestry is mandated by Kentucky Revised Statutes Chapter 149 to provide for a system of wildland fire prevention, detection and suppression. The Division of Forestry provides technical assistance in Forest Stewardship, Urban and Community Forestry and Forest Health Program. The Division of Forestry operates two tree seedling nurseries.

In Kentucky, most of the fertile river bottoms and the uplands having gentle topography have been converted from forestland to agriculture and residential uses. Over much of the state, forests that once covered extensive areas are now confined to the steepest, rockiest or otherwise unfarmable terrain. In eastern and western Kentucky, surface mining has converted forests to pasture and other uses. Barrens (tall grass prairie) and savanna-woodland once covered an estimated two to three million acres in Kentucky. More than 80 percent of Kentucky's wetlands have been ditched, drained, and converted to other uses. Most often the driving force behind habitat loss and/or conversion is population density and urbanization.

There is no single motivating factor behind forest fragmentation in Kentucky. To lessen the rate of forest fragmentation and/or forest conversion in the Commonwealth of Kentucky



depends upon the continued efforts from forest landowners, federal and state land conservation programs, population density; reducing urban sprawl, protecting physiographic regions, wildlife management and natural resource protection efforts, watershed protection, and restoration projects. In order to ensure and protect the Commonwealth of Kentucky's critical forestland, the establishment of the Forest Legacy Program will help provide that forest conservation mechanism.

Ninety-one percent of the forestland is privately owned and by 2025 the population rate is estimated 4, 314,000 people in the Commonwealth of Kentucky. Kentucky's land conversion rate is 126 acres per day changing to uses other than cropland, pastureland or forestland. Current land use trends are medium to large farm and forestland tracts are being sold and broken up into parcels ranging 5-20 acres in size often referred to as hobby farms. Smaller forestland parcels are highly dissected, fragmented and are often more difficult to manage for timber and wildlife resources and protecting watersheds, and underground karst systems. As the complexities of forest management increase so does the demand for natural resources increase also. An estimated 201 million cubic feet of total round wood output in 1999 came from non-industrial private forestlands. Round wood is defined as logs, bolts, or other round section cut form trees for industrial manufacture or consumer uses.

Currently, the Kentucky Division of Forestry along with the USDA Forest Service is involved in completing a statewide forestry inventory. At this point in time, the forest inventory is not current and data analysis is unavailable. However, a project completed the Kentucky State Natures Preserves provided the breakdown of the percent of forest cover and the number of contiguous forest blocks by county. Some Kentucky counties still have a significant number of large contiguous forest blocks still remaining. The forested ecosystems, fish and wildlife resources, mineral resources, soils, watersheds, landowner assistance programs, land trusts, threatened and endangered species, state forest system and federal ownership were described to provide statewide natural resource information and land conservation efforts currently on-going and re-enforce the necessity of a Forest Legacy Program within the Commonwealth of Kentucky.

The ad hoc committee of the State Stewardship Coordinating Committee included representatives of public agencies and conservation organizations that have a working knowledge of forestry and timber production, fish and wildlife management, natural areas, threatened and endangered species, aquatic resources, watershed protection, and public resource conservation. This collaboration represents decades of natural resource knowledge and work brought forth to assist and designate the Northern, Eastern, Southern and Western Kentucky Forest Legacy Areas. County lines were used to simplify the geographical boundaries of the designated Forest Legacy Areas in combination with the Kentucky's major watershed boundaries. Kentucky Assessment of Need describes the authority, purpose, goals, and Forest Legacy Program administration.

## KENTUCKY'S FOREST LEGACY - GOALS

The goals of the Kentucky Forest Legacy Program are to protect environmentally important forest areas that are threatened by conversion to non-forested uses and to promote working forests and other conservation opportunities. The **working forest concept** shall be defined as forestlands with specific objectives that follow forest stewardship principles. These principles address timber management, wildlife management, soil and water conservation, recreation, and aesthetics. The forest stewardship principles shall be defined by the landowner's goal(s) set forth in his/her Forest Stewardship Plan. A Forest Stewardship Plan or equivalent Forest Management Plan will be required when a landowner makes application to Kentucky's Forest Legacy Program

Environmentally important forest areas shall contain multiple combinations of the following important public values and shall be ranked through a system based on these values: (This list does not indicate or imply an order of importance.)

1. Scenic resources
2. Public recreation opportunities
3. Public education opportunities
4. Riparian areas
5. Wetlands
6. Fish and Wildlife habitat
7. Native plant communities
8. Connectivity to other significant areas and other protected lands
9. Known threatened and endangered species
10. Known cultural resources
11. Other ecological values

These forests should provide opportunities for the continuation of traditional forest uses, such as forest management, sustainable timber harvesting, and outdoor recreation.

At least 25 percent of the total acreage of the landowner's property must fall into a designated forest legacy area. Since many tracts may qualify for the Forest Legacy Program, eligibility criteria have been established in order to prioritize acquisition proposals. Landowner applications (fee simple or conservation easements) will only be accepted starting February 1 thru April 31 of each year. **This landowner application process is subject to change-based on recommendations from the Kentucky Forest Stewardship Coordinating Committee.** The Kentucky Forest Stewardship Coordinating Committee shall rank landowner applications (Appendix 3) by using a Kentucky's Forest Legacy Project Proposal Evaluation Form (Appendix 4).

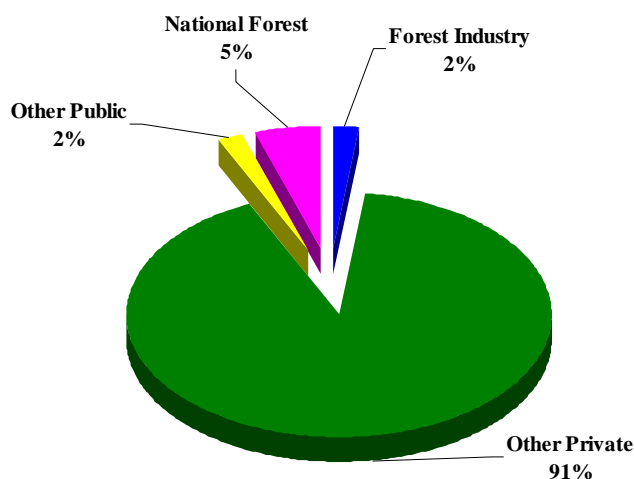
**Lands and interest in lands identified within a Forest Legacy Area may be acquired under Forest Legacy Program authority by the Commonwealth of Kentucky, only on a willing seller/willing buyer basis. Lands acquired or conservations easements purchased under the Forest Legacy Program shall be held by the Commonwealth of Kentucky.**

## KENTUCKY FOREST RESOURCE - TRENDS AND THREATS

Kentucky's forests are highly variable in biological diversity, and are extremely complex in terms of their development and the associated ecological processes that keep a forest ecosystem functioning. Kentucky is in the geographic center of deciduous hardwood forests of eastern North America. Evergreen dominate only a small percentage of Kentucky forests.

Today Kentucky has 12.7 million acres of forestland. Ninety-one percent of this forest is privately owned by more than 300,000 landowners (Figure 2). It is estimated that less than 12 percent of Kentucky's annual timber harvest of more than 800 million board feet utilize a professional forester or have a forest management plan on the property. Of the 45.8 billion board feet of timber currently estimated to be growing in Kentucky, only 28 percent is of high quality. More than 42 percent of the 12.3 million acres are classified as immature commercial forests. Such values indicate great potential benefits from managing young stands to improve our forests for the future.

**Figure 1 - Forestland Ownership in Kentucky**



Today's forests vary considerably in age and composition due to various periods and types of clearing, logging, burning and grazing. Several hundred thousand acres of forests have developed as a result of abandonment of land that was formerly in crops or pastures. Forestland has increased in this century; however, the rate of urbanization, transportation corridors, impounded rivers and forest fragmentation has not declined.

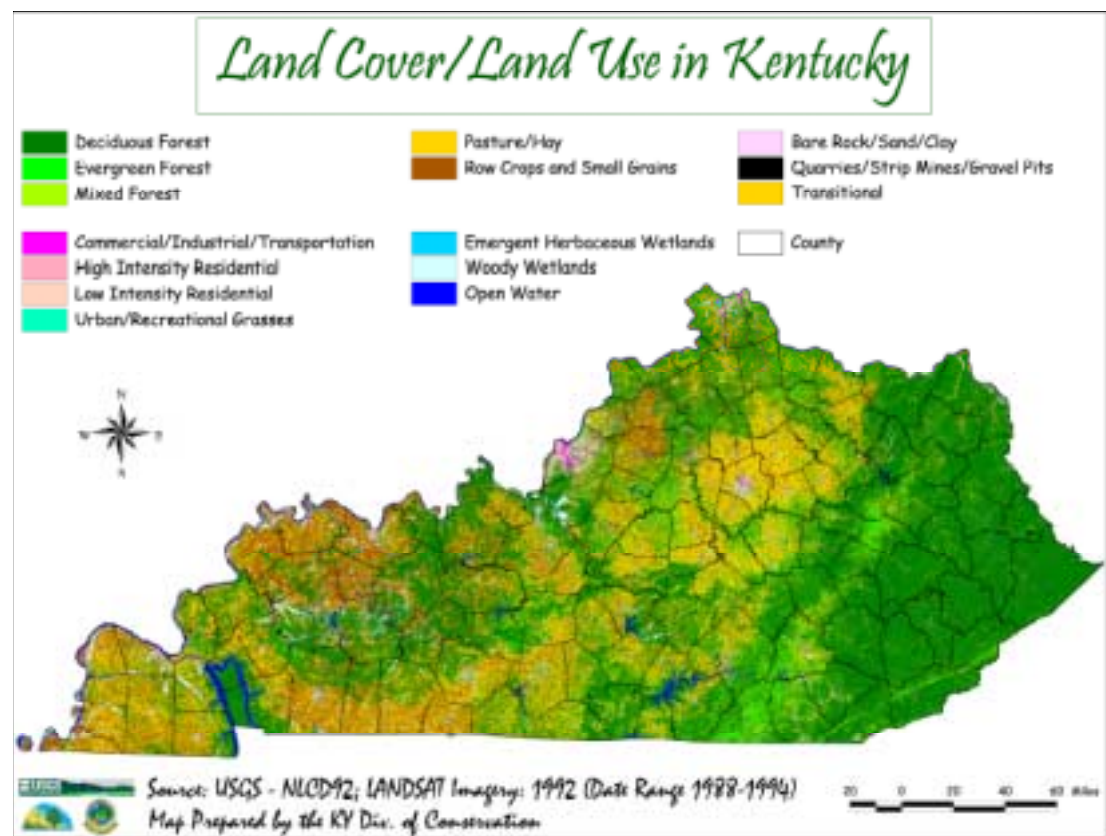
Kentucky's five major timber types and percentage includes oak/hickory (77 percent), northern hardwoods (5 percent), elm/ash/red maple (5 percent), loblolly/shortleaf pine (5 percent), oak/pine (7 percent) and other (1 percent).<sup>1</sup> Figure 3 provides the statewide perspective of land cover types/land use in Kentucky.

From 1982 to 1992, total agricultural land (cropland, pastureland, and forestland) decreased

from 85.1 percent of the total land and water area to 82.3 percent. Between 1982 and 1992 more than 460,000 acres were converted to uses other than cropland, pastureland or forestland. Of this conversion, urban/built-up and roads increased by nearly 368,000 acres, water areas increased by over 18,000 acres. Federal land increased by about 74,000 acres. This conversion represents a rate of **126** acres per day changing to uses other than cropland, pastureland or forestland; and of this amount, conversion to urban/built-up and roads is about **101** acres per day.<sup>2</sup>

Some species have declined in importance due to their fluctuating commercial value and the change in forest condition, these include black walnut and black cherry. Other successional and pioneer species such as eastern redcedar and yellow-poplar have increased in importance, dominating a higher percentage of forest acreage. Some species have been virtually eliminated from our forest---notably, American chestnut and wolves ---but most forest species continue to exist in spite of the dramatic change from pre-settlement forest to the present.

**Figure 2 – Land Cover/Land Use in Kentucky**



### **Kentucky Timber-Industry Timber Product Output**

An estimated 201 million cubic feet, or 88 percent, of the total round wood output in 1999 came from non-industrial private forest (NIPF) lands. Public land contributed 24 million cubic feet, or 11 percent output. Forest Industry lands made up the remaining 1 percent, or 2 million cubic feet cubic feet. The red oak and white oak groups combined accounted for 106 million cubic feet or 49 percent of total hardwood output. Yellow-poplar and hickory accounted for 13 and 10 percent, respectively, of total hardwood output. Yellow pines provided more volume than any other softwood species group, accounting for 76 percent of the total softwood. The loblolly and shortleaf pine types accounted for 16 percent of the total softwood output.<sup>3</sup>

## **KENTUCKY'S FORESTED ECOSYSTEMS**

### **Mixed Mesophytic Forests**

The Mixed Mesophytic Forest Region of the Cumberland Plateau and Mountains is widely recognized as a center of the biological diversity of the world's temperate deciduous forests. The plateau is part of the rugged southern Appalachian region in portions of eight states including eastern Kentucky, southeastern Ohio, and most of West Virginia. The term "**mixed mesophytic**" refers to the mixture of dominant trees in the forest ecosystems of the prevailing, cool, moist, mountain environments. At least 10 commercially valuable tree species are important canopy trees: white oak, northern red oak, shagbark hickory, white ash, beech, sugar maple, black walnut, basswood, and yellow-poplar. <sup>4 5 6</sup>

### **Western Mesophytic (Oak-Hickory) Forests**

West of the Cumberland Plateau and mountains of eastern Kentucky, is dominated by upland forest species like oak/hickory usually with hickory being the second most important species group. The composition of these forest communities and ecosystems also vary greatly depending on topography, soils, and land-use history. The possible forest communities (types) are numerous. Due to drier site conditions, diversity may be lower than in the mixed mesophytic forests of eastern Kentucky, but they are still rich in plant and animal species.<sup>6</sup>

These forests have been broadly classified as western mesophytic or oak-hickory forests. Western mesophytic is probably more appropriate because of the wide diversity of possible forest communities other than those strictly dominated by oaks and hickories (as in Missouri and Arkansas Ozarks). White oak is the major oak of these forests with chestnut oak, black oak, post oak, scarlet oak, southern red oak, and northern red oak as major contributors to the forest canopy. On limestone-derived soils, chinkapin oak and Shumard oak become more important. Shingle oak or blackjack oak are less frequent but widely distributed on selective sites. <sup>4 6 7 8</sup>

Major hickories are pignut, mockernut, red hickory, bittersweet and shagbark, depending on site conditions and community history. Such species as red maple and blackgum become more important in young or selectively logged forests. On north facing slopes, ravines and other cool, moist environments, forests may be quite different with beech, sugar maple, white ash, black walnut, hackberry, and elm joining or completely replacing white oak and the other oaks as major species. <sup>6</sup>

### **Bottomland Hardwood Forests**

In the major wetlands of Kentucky are the bottomland hardwood forests which are concentrated on the broad floodplains and poorly drained areas in the Coastal Plain and Shawnee Hills regions of western Kentucky. Wetlands do occur throughout the state, however. Forests along all of the major rivers and streams are the remnants of forests that occupied the associated floodplain.<sup>6</sup>

All of these forests are characterized by standing water that ranges from periods of brief flooding to permanent flooding. Old river scars, oxbows, and low places that are continuously flooded in western Kentucky are dominated by baldcypress and water tupelo. Areas that are subject to winter and spring flooding are usually dominated by pin oak, cherrybark oak, overcup oak, sweetgum, green ash and eastern hophornbeam.<sup>9</sup>

Upland swamp forests that exist in filled sinks, low places, and abandoned stream channels can have compositions with beech, white oak, sweetgum, red maple, pin oak, and swamp white oak. Forests along streams are characterized by sycamore, green ash, hackberry, slippery elm, boxelder, silver maple, and red maple. Successional forest wetlands, river sand bars, and poorly drained abandoned mine or agricultural lands may be dominated by willow, river birch, red maple, sycamore, and wetland shrubs such as button bush and other flood tolerant species.<sup>6</sup>

### **Evergreen Forests**

Forest communities and ecosystems dominated by evergreens---pines, eastern hemlock, and eastern redcedar---constitute a relatively small portion of total forest acreage, but can be important to regional diversity.<sup>6</sup>

Eastern hemlock forests occur in gorges, ravines, and drainages in eastern Kentucky where they provide watershed protection for headwater streams. Hemlock forests are usually relatively simple forest communities because of the high percentage of hemlock and a near continuous understory of a single shrub---rhododendron (big or white laurel). The two species provide heavy shade and promote development of acid soil conditions that exclude other species.<sup>5 6</sup>

Pine forests or pine mixed with oak are major forest communities on thousands of acres of the most exposed, dry ridges and south-facing slopes in eastern Kentucky. Relative to the mixed mesophytic forests of the region, these forests of dry habitats have fewer, smaller and lower community diversity.<sup>6</sup>

Pitch, shortleaf and Virginia pines are the dominant species. White pine becomes more dominant in the central and northern parts of the Cumberland Plateau. Chestnut oak, white oak, and scarlet oak are components of these forests and may share dominance with the pines.<sup>6</sup>

Eastern redcedar communities are typically early successional. Mature forests of eastern redcedar exist as forest patches, especially on shallow soils of limestone outcrops. Old fields may also be invaded and dominated by Virginia and shortleaf pines if there is a seed source. These pine and cedar forests can exist for decades. Extensive areas have been planted to

loblolly pine in western Kentucky as part of a reclamation efforts, or erosion control efforts.<sup>6</sup>

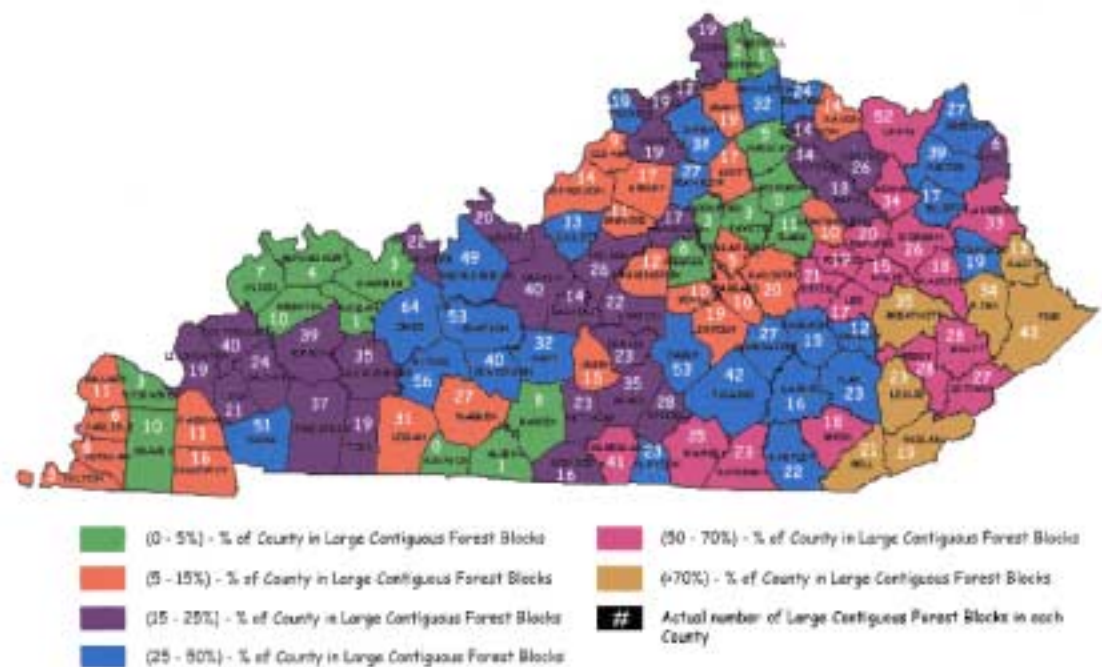
### Savanna-Woodlands

E. Lucy Braun recognized the savanna-woodland of the Bluegrass Region as the most anomalous vegetation type of the eastern deciduous forest.<sup>3</sup> Unfortunately, the intact ecosystem seen at the time of settlement is described in general terms. There are numerous historical references to "caneland", open woods, and plentiful forage and wildlife, especially bison, elk, and deer. Based on the scattered remnants that still exist on several Bluegrass farms, these open forests were composed primarily of blue ash, chinkapin, Shumard and bur oaks, white ash, and shellbark hickory.<sup>6</sup>

The original understory of cane, wild rye grass, and other grasses along with legumes, served as forage for the large grazers and as fuel for fires. That understory has now been replaced by planted fescue and bluegrass, and the grazers are domesticated cattle, sheep, and horses.<sup>6 8</sup>

**Figure 3 - Kentucky State Nature Preserves—Large Forest Block Data**

Marc Evans, botanist with the Kentucky State Nature Preserves Commission and Demetrio P. Zourarakis, Geographic Information Systems Specialist with the Kentucky Division of Conservation developed the Large Contiguous Forest Block Vegetation Data Layer for the Commonwealth of Kentucky based on data collected from the Geographic Analysis Project (GAP).



### **Large Forest Block Executive Summary**

Habitat alteration and forest fragmentation is recognized as one of the primary causes in the decline of biological diversity. At the time of European settlement Kentucky was approximately 90% forested. After more than two hundred years of clearing and altering the landscape Kentucky is now about 50% forested. However the size and location of remaining contiguous forest areas was not known. In addition, forest size and shape is important for supporting viable populations of forest dependent species and this information for Kentucky was not known. This project was initiated to determine the size, shape and location of the remaining large forest blocks in the Commonwealth.

### **Large Forest Block Justification**

Forest and landscape alteration and fragmentation is one of the primary causes of the decline of biological diversity. In Kentucky it is the backdrop against which biological diversity and forest ecosystem preservation and management decisions have to be made at the governmental and landowner level. The Kentucky State Nature Preserves Commission conducts inventories and manages areas with un-fragmented, undisturbed, natural ecosystems. The Kentucky Division of Conservation provides assistance to enhance the landowners' ability to protect areas with unique characteristics.

### **Large Forest Block Materials And Methods**

To capture the largest and most ecologically significant forest blocks a minimum size of 900 acres was established for forests in all of Kentucky west of the Cumberland Plateau and a minimum size of 4,500 acres in the Cumberland Plateau and Cumberland Mountains.

At the time this project was undertaken, two data sets with information on land cover and habitat types existed for Kentucky. One was the land cover classification (1992 National Land Cover Data - United States Geological Survey) and the other one being the plant community classification.<sup>23</sup> The late-1990's Kentucky road network (i.e. local and Kentucky Transportation Cabinet road coverages) was used to eliminate smaller than-the-threshold areas<sup>22</sup>. Utilizing this "sieve", road-less areas were determined, potentially containing forest patches that possess certain properties of interest, such as threshold values for forest patch metrics (area; percentage of inclusions; area:perimeter ratio; etc.). Raster analysis was conducted, using a GIS to delineate continuous, forested regions.

### **Large Forest Block Results**

A total of 1,892 contiguous forested areas were delineated, ranging in sizes from 360 to 26,300 hectares. Sixty percent of the forest blocks had a surface area of 970 hectares or less. Nine percent of the forest blocks were larger than 10,000 acres. Internal openings of 56 acres or less were found in 90 percent of the forest blocks. However, the percentage of area in internal openings ranged from less than 0.1 to 23.5 percent; 93 percent of the blocks had internal opening areas of 10 percent or less. Area:perimeter ratio values ranged from 110:1 to 2,130:1 with 75 percent falling below the 725:1 value. Multivariate spatial analysis is on-going with the purpose of refining the metrics and providing a base map for future revisions.



## KENTUCKY'S OTHER NATURAL RESOURCES

### Wildlife Resources

Hunting and wildlife watching are very important social and economical activities in Kentucky. According to preliminary findings of the **2001 U.S. Fish and Wildlife Survey Report**, 323,000 hunting licenses were sold in Kentucky in 2001. Retail sales for hunting-related items equaled \$506 million, and hunting had an overall economic impact of approximately \$1 billion in Kentucky. In 1996 (from 1996 **U.S. Fish and Wildlife Survey Report**), hunting-related retail sales in Kentucky were \$365 million, with an overall economic impact of \$718 million and a total of 10,439 jobs.

Kentucky Department of Fish and Wildlife Resources (KDFWR) manages state-owned or leased wildlife management areas (WMAs) across Kentucky. Each WMA is managed for a suite of wildlife species and provides ample recreational opportunities for Kentucky's citizens. KDFWR owns or manages approximately 670,000 acres statewide, many of which occur within each of the forest legacy regions. Although Kentucky does not have a statewide WMA hunting or user permit requirement, they do require hunting permits on 2 of their WMAs. During the 2001-2002 hunting season, nearly 1,100 permits were sold for one WMA, and 15,210 permits were sold at the other. However, the number of permits sold represents a very small portion of annual visitors to these WMAs—they are visited extensively for bird watching, elk viewing, canoeing, etc. Residents and nonresidents of Kentucky use these state-owned lands extensively for hunting, fishing, wildlife viewing, camping, hiking, horseback riding, and numerous other recreational opportunities and offer a tremendous economic boost to our state.

The **2001 U.S. Fish and Wildlife Survey Report** illustrates the growing importance of public lands and wildlife-watching activities. In 2001, Kentucky had an estimated 1.23 million residential (within one mile of home) wildlife-watching participants and an additional 385,000 nonresidential participants (more than one mile from home). All-tolled, wildlife-watching expenditures in Kentucky in 2001 were approximately \$812 million (up from \$182 million in 1996). Total economic impact for 2001 has not been calculated yet, but a large increase from 1996's total of \$275 million will be evident.<sup>10 11</sup>

### Fisheries Resources

Fishing is one of the most popular outdoors-related activities in Kentucky. In 2001, 780,000 resident and nonresident anglers purchased fishing licenses. Kentucky offers a diversity of freshwater fishery resources, including over 333 miles of trout streams, 49,100 miles of warm water streams (18,500 miles are perennial) and 293,400 acres of impoundments. Anglers spent over \$600 million in 2001 (**2001 U.S. Fish and Wildlife Survey Report**) on fishing in Kentucky. In 1996, when anglers spent \$517 million, fishing which generated an estimated 14,082 jobs and had a total economic impact of over \$1 billion.<sup>11</sup>

### Tourism and Forest-based Recreation

Tourism is Kentucky's third largest industry, contributing over \$8.7 billion to the state's economy in 2001. Tourism is the second largest employer in Kentucky, accounting for over 160,200 jobs. Kentucky has 50 state parks with a trail system totaling nearly 250 miles, and 32 camping facilities with 2,645 sites. It also includes the newest state park, designated in 2002, the Pine Mountain Trail. The linear park, to be established as a long distance backpacking

trail, will traverse the crest of Pine Mountain for over 100 miles. Kentucky is also home to one national forest, two national recreation areas, three national parks, and over 70 public wildlife management areas.

A large segment of this is forest-based recreation includes activities like hiking, camping, hunting, mountain biking, horseback riding, picnicking, birding and wildlife watching. Autumn in Kentucky brings in tourists by the tens of thousands to enjoy and observe the spectacular fall colors. The annual ColorFall program, sponsored by the Department of Travel and Kentucky State Parks, tracks the progression of foliage color each fall. This information is sent to the media in Kentucky and surrounding states each week through the fall season, reaching millions of fall travelers, pinpointing the best places to go to see the best colors. Because of better forest and wildlife management practices in recent years, two new wildlife-watching opportunities have created another tourist draw to the state. The comeback of the black bear and the reintroduction of elk in Kentucky have increased visitation to some state parks in eastern Kentucky.

Kentucky has a very diverse topography, which appeals to a wide variety of tourists. From the Cumberland Plateau physiographic regions of eastern Kentucky, to the bottomland forests and wetlands of western Kentucky, tourists have an opportunity to enjoy the most diverse forest types in the United States.<sup>12</sup>

### **Mineral Resources**

In Kentucky, only two categories of mineral resources are important economically: fuels and industrial minerals. Coal, oil, and natural gas are mineral fuels, and the industrial minerals of significance are limestone, dolomite, sand, gravel, clay, and shale. Metals, particularly ores of zinc and lead and some limited amounts of silver were mined in the past, but no current mining of metals exists in Kentucky today.

Coal occurs in 57 of Kentucky's 120 counties. Coal is, or has been, mined in the western Kentucky coalfields in 20 counties and in 37 counties in the eastern Kentucky coalfields. In the western field it is primarily mined in large-area surface mines with numerous slope and shaft mines, but due to the mountainous topography of the east, contour surface mines and drift underground mines characterize mining. Kentucky continues to be one of the top three coal producers in the United States. Coal-fired power plants generate 95 percent of the electricity in Kentucky. The coal resource base is substantial and will support mining well into the future.

Oil and natural gas occur throughout much of western, south central, and eastern Kentucky. Drilled wells penetrate the reservoirs, and primary production recovery of oil and gas results from this flow or from what can be pumped to the surface. Only about one-third of the oil in place is obtained this way, the remaining must be recovered by other means. Secondary recovery uses circulated water (and other chemicals or fluids) to displace additional oil and bring it to the surface. Kentucky ranks 20th nationally in volume of oil produced, and Kentucky ranks 18<sup>th</sup> nationally in volume of natural gas produced.

Industrial minerals furnish raw materials for construction, and agriculture, and chemical, manufacturing, and energy-related industries. Limestone and dolomite are at the surface in 25 percent of Kentucky, located mainly in central and western parts of the state. Sand and gravel,

also used as a source of construction material, occur in deposits along the Ohio River Valley and in the Jackson Purchase Region of western Kentucky. Clay and shale are produced from deposits in the western and eastern coalfields, Jackson Purchase, the Knobs Region and the Ohio River Valley. In all, there are more than 130 quarries, pits, underground mines and dredges in operation in Kentucky. Most operate at the surface of the land, but there are 20 underground mines producing crushed stone. This is more than any other state in the Nation. The Reed Quarry in western Kentucky is one of the largest producers of crushed stone in the United States, shipping 80 percent of its stone by barge, 10 percent by rail and 10 percent by truck. The chief markets are in Louisiana and Mississippi. In 2000, Kentucky ranked 30<sup>th</sup> among the states in non-fuel mineral production.<sup>13</sup>

### **Soils and Soil Productivity**

Most of the soils in Kentucky (except recent stream deposits) developed under a forest cover with roughly the same climate. Differences in soils are the result of differences in parent materials, topography, and the length of time the materials have been exposed to the soil-forming processes. The processes are: (1) climate, (2) living organisms (primarily vegetation), (3) parent materials, (4) topography, and (5) time.

The state of Kentucky is divided into 12 physiographic regions and major soil association areas. The areas are: (1) The Purchase – Mississippi River Flood Plain, (2) The Purchase – Thick Loess Belt, (3) The Cumberland – Tennessee River Section, (4) The Western Coal Fields – Low Hills and Valley Areas, (5) The Western Coal Fields – Hilly Uplands and the Sandstone-Shale-Limestone Area of the Western Pennyroyal, (6) The Western Pennyroyal – Limestone Area, (7) The Knobs, (8) The Outer Bluegrass, (9) The Hills of the Bluegrass, (10) The Inner Bluegrass, (11) The Eastern Pennyroyal, and (12) The Mountains and Eastern Coalfields.

Forests cover most soil types in the state. The amount of forest cover in regards to soil types varies according to the other uses in the geographical areas. For example, the better soils in relatively flat to rolling topography are utilized for pasture, crops other than trees, and are often being converted to non-agricultural land use. Timber quality on better soils is often times, better than timber quality on poor soils. However, in poorer soils and steeper areas of the state, better quality timber is more often associated with slope and aspect. The northern and eastern aspects often produce the best timber while, south and west facing sites generally produce lower quality timber.

Along drainage areas and on marginal land in many of the farming areas of the state, good timber is often found; however, it is usually not in large-acre tracts. These marginal areas are too steep for most equipment. They occur throughout the state but are often associated with the annual return of livestock and crops such as corn, soybean, tobacco, etc. With the rotational period of timber being in the decades, this leads many landowners to convert their acreage to alternative land-uses besides forests.

On the more hilly, steep, and mountainous areas of the state, the primary use is forestland. Where acreage in these areas was cleared in the past, the marginal returns on pasture and rotational crops have seen most of these areas return to forest cover. Eastern Kentucky is an area that has extensive forest cover, and in many counties area of the state, exceptional

quality timber is harvested. Overall, the eastern part of Kentucky has the potential to be world renown in the hardwood timber industry. The primary reason for poor quality timber in this region is more a factor of uncontrolled wildland fires, than poor soils.<sup>14</sup>

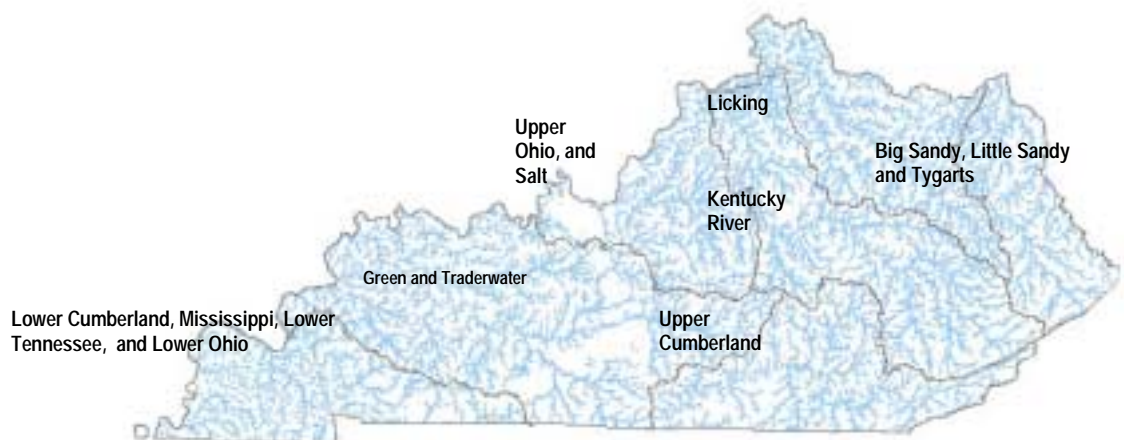
### **Watershed Criteria**

Kentucky is divided into 11 river basins: Kentucky, Salt, Licking, Green, Big Sandy, Little Sandy, Tygarts, Upper Cumberland, Lower Cumberland, Tennessee and Tradewater. There are also numerous tributaries that drain directly into either the Ohio or Mississippi Rivers. Together these basins drain an estimated 89,431 miles of rivers and streams. In addition, Kentucky has over 228,000 acres of manmade lakes. The land around these lakes and streams is comprised of agricultural land (42 percent); forestland (42 percent); urban area (7 percent); federal lands (5 percent); with the remainder in other areas.

Topography in the watershed basins range from the rugged hill and valley terrain of the Cumberland Plateau in eastern Kentucky to the gently sloping floodplain of the Mississippi River Valley in western Kentucky. Waterways in the more rugged regions tend to have a higher gradient with narrow floodplains. Streams in the western regions generally have low gradient and wide floodplains. About 55 percent of Kentucky is underlain with a unique geologic feature known as karst. Karst is characterized by underground drainage and conduit-fed springs, and may include sinkholes, caves and sinking streams. Karst topography is most common in the gently rolling terrain of central Kentucky.

Water quality in Kentucky's streams varies from excellent to very poor depending on the level of disturbance in the watershed. Kentucky currently has assessed about 7,000 miles of its streams. About one-third of assessed stream miles are impaired and do not fully support designated uses such as recreation, aquatic life habitat and drinking water supplies. The main causes of water pollution are pathogens, siltation, nutrients and habitat alteration. The leading sources of this pollution are agriculture, resource extraction and sewage. A few watersheds have remained largely undisturbed and feed streams that contain excellent water quality and unique biota. There are over 100 miles of State Wild Rivers in Kentucky; and portions of the Red River, Big South Fork and Green River are designated as National Wild and Scenic Rivers. Kentucky rivers and streams are home to more than two dozen federally threatened or endangered aquatic species.<sup>15</sup>

**Figure 4 –Kentucky Major River Basins**



## **KENTUCKY LANDOWNER AND CONSERVATION ASSISTANCE PROGRAMS**

- Forest Stewardship Program
- Conservation Reserve Program
- Environmental Quality Incentives Program
- Wetland Reserves Program
- Wildlife Habitat Incentive Program
- Kentucky Heritage Land Conservation Fund
- Urban and Community Forestry Program

### **Forest Stewardship Program**

The purpose of the forest stewardship program is to encourage the long-term stewardship of non-industrial private forest (NIPF) land. The program helps NIPF landowners, either individually or collectively with their NIPF neighbors to more actively manage their forests, watersheds, and related resources and keep those lands and watersheds in a productive and healthy condition for present and future generations. Participation in the forest stewardship program is voluntary.

### **Conservation Reserve Program**

The USDA Farm Service Agency administers the program and the Natural Resource Conservation Service (NRCS) provides the technical assistance. This program provides incentives to landowners to convert highly erodible or other environmentally sensitive acreage to vegetative cover, such as native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Landowners receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices.

### **Environmental Quality Incentives Program**

This cost-share program, administered by the NRCS, provides technical, educational, and financial assistance to landowners to address natural resource concerns in an environmentally beneficial and cost-effective manner. Payments can be made to implement practices including pest management, tree planting, and forestland management.

### **Wetlands Reserve Program**

This program is administered by the NRCS, and offers financial support to landowners' wetlands restoration and protection projects. The Federal Government obtains voluntary conservation easements from landowners and provides cost-share payments for wetlands rehabilitation practices. Among other practices, Wetland Reserve Program allows and encourages tree plantings focused upon wetland rehabilitation.

### **Wildlife Habitat Incentive Program**

This program is administered by the NRCS to provide cost-share assistance to private landowners to help them enhance wildlife habitat areas on their lands. This program compensates landowners for the lack of market incentive to invest in public goods, such as watershed and wildlife protection, and it encourages landowners to make long-term

investments in maintaining the natural resource base. The program supports a wide range of habitat improvement, including tree planting.

**Kentucky Heritage Land Conservation Fund**

The Kentucky Heritage Land Conservation Fund was established to provide funding for:

- 1). Natural areas that possess unique feature such as habitat for rare and endangered species;
- 2). Areas important to migratory birds;
- 3). Areas that perform important natural functions that are subject to alteration or loss; and
- 4). Areas to be preserved in their natural state for public use, outdoor recreation and education.

**Urban and Community Forestry Program**

The Kentucky Division of Forestry's Urban and Community Forestry Program, in cooperation with the USDA Forest Service and the Kentucky Urban Forestry Council, administers the Kentucky Urban and Community Forestry Grant Program. The goal of this program is to encourage citizen involvement in creating and supporting long-term and sustained Urban and Community Forestry Programs. This grant program, as well as other outreach efforts of the program, seeks to enhance the technical skills of individuals involved in the planning and maintenance of the urban forests of Kentucky. Other outreach efforts include employee training, state urban forestry conferences, Arbor Day ceremonies, and meetings with city employees as well as private citizens.<sup>16</sup>

**Kentucky's Land Trust**

The following land trusts are active in conserving efforts in the state.

**Bluegrass Conservancy**

**Clear Creek Conservation Trust**

**Future Fund, Inc.**

**Jefferson County Environmental Trust**

**Mill Springs Battlefield Association**

**Southeastern Caves Conservancy**

**The Nature Conservancy**

**Civil War Preservation Trust**

**Elkhorn Land and Historic Trust**

**Hillside Trust**

**Kentucky Natural Lands Trust**

**River Fields, Inc.**

**The Boone Conservancy**

## **KENTUCKY STATE FOREST SYSTEM**

The Kentucky Division of Forestry manages five state forests with a combined total of 31,350 acres. A forest ecosystem management plan that addresses biological diversity and sustainable use is being developed for each state forest. The Kentucky Heritage Land Conservation Fund provides funding to purchase state forest property. Revenue from the fund comes from a percentage of the state's portion of the unmined minerals tax, environmental penalties and state nature license plate sales. The division continues to seek new properties to add to the state forest program. The state forests are open to the public for hiking, fishing, camping and other activities.

### **Green River State Forest – Henderson, Kentucky**

The Green River State Forest consists of 703 acres located five miles northeast of the town of Henderson in Henderson County. The property, which is now the Green River State Forest, was originally acquired by the Kentucky Center for Research in 1978 and 1981 to build a synthetic fuels research and production site. Due to several problems, the property was never used for its intended use. The property was transferred to the Division of Forestry in July 1998. The division plans to acquire additional property adjoining the current property in order to expand the forest.

As part of the state forest system, Green River State Forest will be managed under the same general guidelines as the other state forests. It is to be managed for multiple uses and is open to the public for most recreational uses including hiking, hunting and fishing. Off-road use of ATVs is prohibited, as is any other use that would cause damage to the property. Special management goals are to re-establish as much bottomland hardwood forest as possible, both for research purposes to maintain wildlife habitat, and to protect the unique habitat of the baldcypress swamp located near the river.

Currently, 372 acres of the property is in agricultural use to grow soybeans and corn. The remaining is in young bottomland hardwoods and swamp land. As time goes on, more and more of the agricultural land will be turned back into bottomland hardwood forest. This is the only state forest that has significant amounts of bottomland, bottomland hardwoods, or swamp land, so it is a valuable addition to the state forest system. This property is also important habitat for the rare copperbelly water snake. Part of the management of the property will be to improve and expand this habitat.

### **Kentonia State Forest – Harlan County**

Kentonia is the oldest state-owned forest, acquired in 1919 as a gift from the Kentonia-Cantron Corporation. It is located in Harlan County along the south side of Pine Mountain in seven scattered tracts totaling 3,624 acres. The largest of these tracts is accessible by Little Shepherd Trail and contains Goss Park Camping Area on the crest of Pine Mountain. The forest is available for hunting within state seasons, and hiking is permitted.

### **Kentucky Ridge State Forest - Bell County**

Kentucky Ridge State Forest was acquired by lease in 1930, as part of the Land Use and Resettlement Program. The lease was sustained until 1954 when the property was deeded by the federal government to the Commonwealth of Kentucky.

Kentucky Ridge State Forest contains Pine Mountain State Resort Park on Pine Mountain and is located on the south side of Pine Mountain and the north side of Log Mountain, encompassing Little Clear Creek Valley. The forest also contains Chenoa Lake, the Division of Forestry's Chenoa Service Center and Bell County Forestry Camp. Kentucky Ridge State Forest is managed for sustainable timber production. The forest is open to public hunting and fishing, subject to state fish and game regulations, and is available for primitive camping, hiking and picnicking.

### **Pennyrile State Forest – Christian, Hopkins and Caldwell Counties**

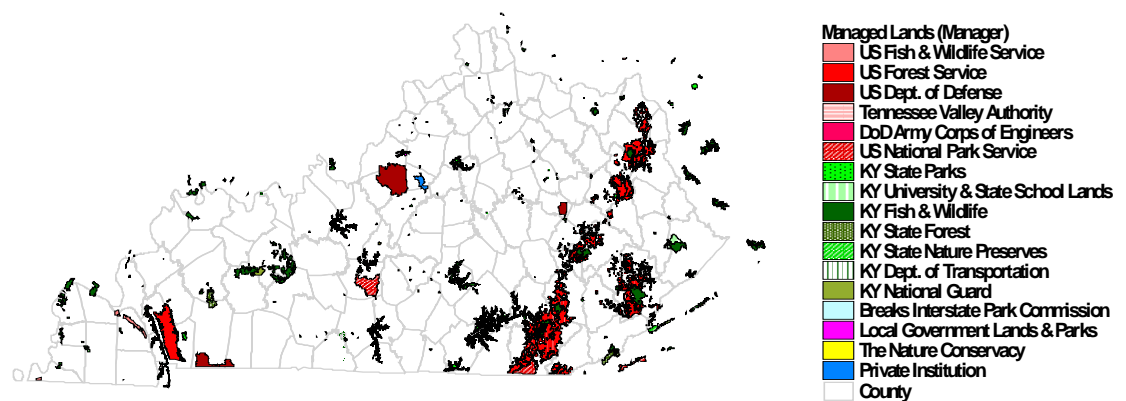
In 1930, as part of the Land Use and Resettlement Program, the Division of Forestry acquired leases on land in Christian, Hopkins and Caldwell counties, which became the Pennyrile State Forest. It now includes 14,654 acres of forest. These leases were sustained until 1954, when the property was deeded (with certain reservations) by the federal government to the Commonwealth of Kentucky.

Pennyrile State Forest contains Pennyrile State Resort Park and borders Lake Beshear. Pennyrile State Forest is managed for sustainable timber production. The Kentucky Department of Fish and Wildlife Resources conducts a managed bonus deer hunt here each December in cooperation with the Division of Forestry. The Division of Forestry and the Department of Fish and Wildlife Resources have cooperated in numerous projects in the forests, including turkey and grouse restoration projects. The area is open to public hunting and fishing, subject to state fish and game regulations, and is available for primitive camping, hiking and picnicking.

### **Tygarts State Forest - Carter County**

The state bought Tygarts State Forest in Carter County in 1957. It is 800 acres in size and adjoins Carter Cave State Resort Park. The forest is open to public hunting (subject to fish and game regulations), primitive camping and hiking.

**Figure 5 – Kentucky's Managed Lands**





## FEDERAL LAND OWNERSHIP

### **Daniel Boone National Forest<sup>17</sup>**

Located in the mountains of eastern Kentucky, the Daniel Boone National Forest (DBNF) encompasses over 699,575 acres of land. This land is generally rugged and characterized by steep forested ridges, narrow valleys, and over 3,400 miles of cliffline. The forest contains two large lakes (Cave Run Lake and Laurel River Lake), many rivers and streams, two wilderness areas, and a 269-mile Shelton Trace National Recreation Trail that extends across the length of the forest. It is estimated that over 5 million visitors utilize the forest annually for backpacking, camping, fishing, boating, rock climbing, picnicking, and many other outdoor activities.

DBNF is located in the mixed mesophytic region of the eastern deciduous forest and is characterized by a wide variety of species both in the understory and overstory. This complex of species varies in composition with changes in aspect and relationship to water and soil. Among the species found in the canopy layer on north and east facing slopes and in coves are northern red oak, basswood, beech, yellow-poplar, sugar maple, birch, red maple, and hemlock. West-facing slopes contain yellow-poplar, northern red oak, white oak, and hickories. On south-facing slopes and ridgetops, where moisture becomes limiting, shortleaf pine, chestnut oak, black oak, white oak, and Virginia pine are common associates. Over 40 commercial species occur on the forest, and also present are at least as many non-commercial trees and shrubs.

Forty-nine percent of DBNF is composed of upland hardwood species, including various combinations of white oak, chestnut oak, northern red oak, black oak, scarlet oak, southern red oak, and hickories. Cove hardwoods occur on 24 percent of the sites, including northern red oak, white oak, basswood, yellow-poplar, hemlock, sugar maple, and beech with an occasional black cherry and black walnut. Pine species compose 15 percent of the forest; varieties include shortleaf, pitch, table mountain, Virginia and some planted loblolly pine. Twelve percent of DBNF is composed of mixed pine-hardwood forest types including, scarlet oak, chestnut oak, black oak, white oak, and hickory in combination with either shortleaf, pitch, table mountain, Virginia or white pine. Pure stands of eastern white pine comprise less than one percent of DBNF.

Common species found in the understory include rhododendron or fern-ephemerals on moist sites and mountain laurel or blueberry-huckleberry on dry sites. The woody component of other understories consists of many varieties of dogwood, sourwood, and blackgum in association with seedlings of the more tolerant species in the understory. Two species of plants, the white-haired goldenrod (found near the base of sandstone cliffs in the Red River Gorge Area) and a relic population of Canadian yew in Lee county will require special studies and consideration of management.

DBNF is located within a proclamation boundary that encompasses an area of 2,047,000 acres. Some of the six ranger districts have consolidated areas of national forest land while other districts have highly dispersed national forest lands intermingled with private land ownership. See Table 1 below for acreage breakdowns by county.

>>>DISTRICTS>>>	Morehead	Stanton	London	Somerset	Stearns	Redbird	Totals
>							
COUNTIES							
Bath	19,300						19,300
Clay						77,594	77,594
Estill		2,265	3,333				5,598
Harlan						803	803
Jackson			58,375				58,375
Knox						74	74
Laurel			62,478				62,478
Lee		5,822	2,765				8,587
Leslie						52,194	52,194
McCreary				41,048	101,074		142,122
Menifee	24,270	22,352					46,622
Morgan	12,948						12,948
Owsley			3,848			12,432	16,280
Perry						2,191	2,191
Powell		15,528					15,528
Pulaski			109	37,332			37,441
Rockcastle			14,793				14,793
Rowan	62,509						62,509
Wayne					642		642
Whitley			32,865		12,500		45,365
Wolfe		16,458					16,458
Totals	119,027	62,425	178,566	78,380	114,216	145,288	697, 902

DBNF uses land exchange and land purchase programs to acquire properties that benefit consolidation and resource management programs, (i.e. acquiring habitat for wildlife, providing recreation opportunities, protecting watersheds, and acquiring lands to restore impaired watersheds to more productive ecosystems). With such intermingled ownership patterns, DBNF must acquire right-of-ways through private lands in order to provide public access. DBNF has approximately 4,000 miles of public boundary lines and forest trespass continues to be a problem.

About forty percent of the National Forest overlies private mineral ownership. Development of the private mineral estate requires compliance with the terms of mineral severance deeds with respect of all parties of the rights enjoyed by the mineral owner and surface owner.

### **Big South Fork National River and Recreation Area<sup>18</sup>**

The Big South Fork of the Cumberland River and its tributaries pass through 90 miles of scenic gorges and valleys containing a wide range of natural and historic features. The area offers a broad range of recreational opportunities including camping, whitewater rafting, kayaking, canoeing, hiking, horseback riding, mountain biking, hunting and fishing. The National Park Service maintains these lands and facility located in northcentral Tennessee and southeastern Kentucky in the Cumberland Plateau. Big South Fork encompasses approximately 125,000 acres of both rugged forested gorge and adjacent forested plateaus. State and federal lands share the north and western boundary, offering a variety of habitats for both plants and

animals. Within the area many pristine streams both in Tennessee and Kentucky, have carved deep gorges and impressive cliffs and arches throughout the national area.

The general forest type is mixed oak with mixed mesophytic pockets. This is divided into an upland community on the plateau and a ravine community. The upland vegetation types range from red maple dominated stands on poorly drained flats to Virginia pine dominated stands on dry ridges and cliff edges. On the broad flats and gentle slopes are the mixed oaks with hickory. More mesic species including, beech, sugar maple, and birch dominate ravine communities with scattered oaks on the middle and lower slopes. Hemlock is prominent in the narrow gorges and along streams and river birch and sycamore are commonly found on the floodplains.

A wide variety of specialized habitats exist on the floodplains, in protected coves and ravines, on moist north-facing slopes, and on the sandstone caprock with dry, shallow soils. The rugged topography and moist, moderate climate combine to produce a great variety of microclimatic influences due to slope, orientation, and exposure. Due to logging practices in the early to mid 20th century, most of the forest areas are 2nd or 3rd generation growth. As a result, mature forests and groves of a particular scenic interest are rare. Due to inaccessibility, several small areas containing impressive examples of 2nd generation growth floodplain, mixed-mesic, and hemlock forests still exist, mostly in the more northern coves of the national area.

The variety of natural conditions combines to provide a high diversity of habitat. Sixty-eight species of fish, 215 taxa of macro invertebrates, and 23 species of mussels have been documented in recent surveys within the national area. Game fish include resident native channel catfish, longear sunfish, muskellunge, rock bass, and smallmouth bass. Walleye, striped bass, and white bass migrate upstream from Lake Cumberland; and brown and rainbow trout have been stocked in three streams by state agencies. Mammals hunted in the national area include white-tailed deer, raccoon, and gray squirrel. Game birds hunted include ruffed grouse, mourning dove, and turkey. Non-game species are plentiful and include a variety of salamanders, and various predators such as bobcat, gray fox, and the red-tailed hawk. Black bear have been re-introduced on an experimental basis, with analysis still continuing.

The Big South Fork watershed lies within the Cumberland Plateau physiographic province, which is the southern portion of the Appalachian Plateaus structural province. The geology of the national area is characterized by parallel, horizontally bedded sedimentary rock of Pennsylvanian age overlaying Mississippian age rock. The Pennsylvanian rocks are predominantly sandstone and shale, and include siltstone, conglomerate, and coal. Oil and gas deposits associated with the Mississippian age limestone are found in many areas within and outside the southern portion of the national area.

A dendritic drainage pattern and narrow, v-shaped gorges characterize the upstream topography of the region. The focal point of the area is the massive gorge with its many sheer bluffs at the gorge rim towering over wooded talus slopes and the naturally fluctuating river and tributaries below. The valleys are dotted with huge boulders broken from the cliff faces above. Streams include stretches of fast, rugged whitewater and quiet pools. Weathering processes have produced an impressive array of rock formations, including arches, mesas, chimneys,

cracks, and rock shelters. Prior to national area establishment, Tennessee designated Twin Arches and the Honey Creek area as State Natural Areas because of their geological and other natural attributes. The gorge, as defined by the establishing legislation, is roughly one-half of the total acreage of the national area.

The Big South Fork River begins within the national area at the juncture of New River and Clear Fork and flows northward through the national area for approximately 49 miles, where it is free flowing for 37 miles until it is affected by the headwaters of Lake Cumberland.

### **Land Between the Lakes National Recreation Area<sup>19</sup>**

Land Between the Lakes National Recreation Area (LBL) is located near I-24, about 90 miles north of Nashville, Tennessee. As a designated national recreation area under the management of the USDA Forest Service, the LBL is maintained for the public's enjoyment and safety. LBL offers all the outdoor recreation "basics", with some unique opportunities for environmental education and historic interpretation. Nestled in western Kentucky and Tennessee, the LBL welcomes on average, two million visitors each year from around the world.

The LBL's forest management activities support its recreation and education mission. Management tools include fire and disease protection, tree planting, harvesting and timber stand improvement (TSI) practices, and biosphere reserve creation. The Kentucky and Tennessee Divisions of Forestry provide the primary means of fire prevention at the LBL. In the biosphere reserves, natural fires are allowed to burn only if they pose no threat to visitors or the LBL's public use facilities. Integrated pest management surveys are performed annually to monitor for any significant insect or disease threat. Earlier forest management practices called for planting trees such as Virginia pine, oak and baldcypress to control erosion and provide winter wildlife cover. Today, LBL allows Mother Nature to do most of the tree planting. Before any forest management activities such as harvesting or TSI take place, ground surveys are conducted to ensure that sufficient numbers of advanced young trees are available to reforest the site. Within the LBL, 42,500 acres (25 percent) are set aside as a Biosphere Reserve. These protected areas are open to most public uses, but most timber harvesting and open land management is prohibited. The Biosphere Reserve recognizes and protects the LBL's unique natural resources and helps meet regional biodiversity needs.

### **Mammoth Cave National Park<sup>20</sup>**

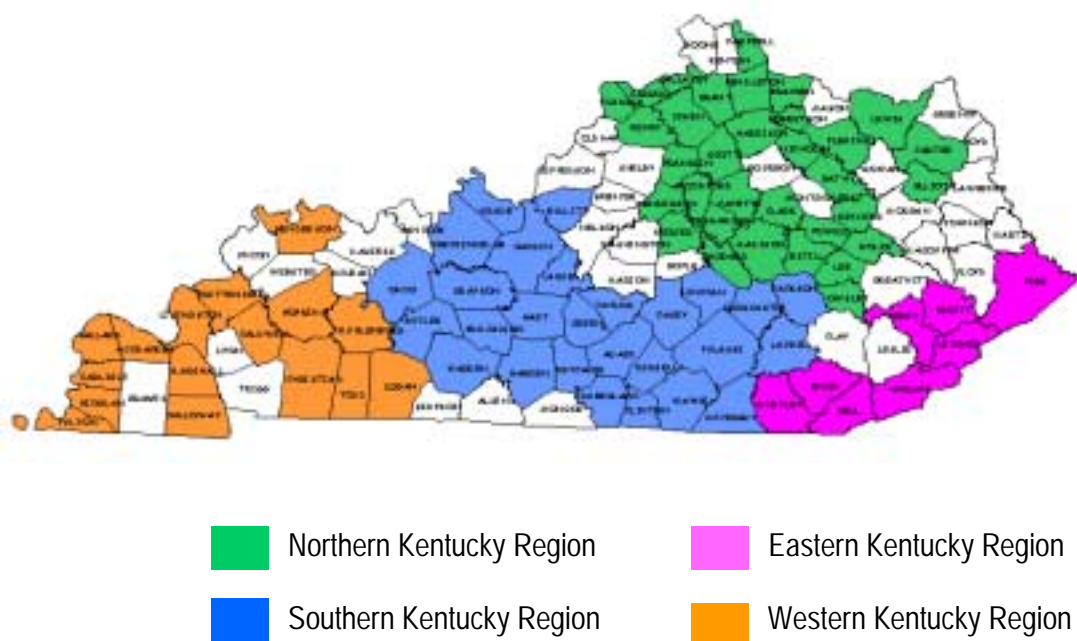
Mammoth Cave National Park was established in 1941 to preserve the cave system, including Mammoth Cave, the scenic river valleys of the Green and Nolin rivers, and a section of south central Kentucky. The Mammoth Cave system in Mammoth Cave National Park in Edmonson county is the most extensive in the world with 300 miles of surveyed passages. This immense subterranean environment supports one of the largest assemblages of cave organisms known. Approximately 200 species of plants and animals are found in the Mammoth Cave system and a number of them are recognized as rare, endangered, or threatened species such as the Kentucky cave shrimp and species of cave fish and crayfish. Their rarity and their existence on the brink of extinction result from their total confinement to a unique and fragile environment.

## KENTUCKY'S DESIGNATED FOREST LEGACY AREAS

The director of the Kentucky Division of Forestry appointed an ad hoc committee of the State Forest Stewardship Coordinating Committee. Committee members included representatives of public agencies and conservation organizations that represent natural area selection and management, threatened and endangered species protection, game and non-game wildlife species management, aquatic resources, timber production, and public resource conservation interests.

The ad hoc committee considered nominations for Forest Legacy Areas (FLA). The nominations were prioritized and selected with respect to their threat to conversion, environmental importance or value for traditional uses. The ad hoc committee in conjunction with the director recommends the creation of four Forest Legacy Areas. They are as follows: 1) Northern Kentucky, 2) Eastern Kentucky, 3) Southern Kentucky, and 4) Western Kentucky. The main goal for all the designated areas will be to lessen forest conversion to non-forest uses.

Figure 6 - Kentucky Forest Legacy Areas.



### **Northern Kentucky**

- This area includes the physiographical regions of the Knobs, Inner Bluegrass and Outer Bluegrass.
- This area is experiencing excessive development pressures from the population growth of Lexington, Louisville and Cincinnati.
- This area is experiencing a higher increase in forest fragmentation, which diminishes the natural habitat corridors for wildlife such as songbirds, woodcocks, doves, turkey, grouse, squirrels, rabbit and deer.
- This area includes many federal and state-listed threatened and endangered flora and fauna species (Appendix 5).
- This area has numerous watersheds with varying water quality conditions (including surface and ground water).
- This area contains unique archaeological resources (buffalo hunting grounds, Indian Old Fields, Big Bone Lick).

### **Eastern Kentucky**

- This area includes the Eastern Kentucky Coalfield physiographic region.
- This area contains the largest contiguous and existing forest blocks in Kentucky
- This area includes the Black Mountain system, which is the highest elevation in the state and has associated unique forest types.
- This area has less commercial or residential development pressures; however, mineral resource exploration and extraction pressures continue.
- This area contains a diverse number of forest communities and habitats for wildlife.
- This area has potential water quality problems and is in need of protection along the forested riparian buffers.
- This area has many federal and state listed threatened and endangered flora and fauna species (Appendix 5).
- This area contains unique archaeological resources (chert quarries, prehistoric crematory).

### **Southern Kentucky**

- This area includes the physiographical regions of the Mississippi Plateau, eastern portion of the Western Kentucky Coalfield, and the Southern Knobs.
- This area is experiencing excessive development pressures from the population growth of Louisville, Bowling Green and Elizabethtown.
- This area has many federal and state listed and endangered flora and fauna species (Appendix 5).
- This area is inundated with cave systems, sink and blue holes, and water quality protection is a necessity.
- This area includes numerous wildlife management areas, and The Nature Conservancy has identified the Big Barrens as core focus areas for wildlife.
- This area contains a large region of the state's central hardwoods (oak-hickory forests).

- This area contains unique archaeological resources (Paleo-Indian sites, Mammoth Cave).

### **Western Kentucky**

- This area includes the physiographic regions of the Mississippi Embayment and Western Mississippian Plateau.
- This area includes fragmented bottomland hardwood forest and linking and expanding the continuous forest blocks will develop new habitats for wildlife.
- This area has numerous watersheds with varying water quality conditions.
- This area has many federal and state listed and endangered flora and fauna species (Appendix 5).
- This area includes several wildlife management areas including the Peabody, White City, and Sloughs Wildlife Management Area. All wildlife management areas are used by the general public for recreation.
- This area has unique archaeological resources (Wickliffe Mounds, large Mississippian villages).

## DETAILED FOREST LEGACY AREA DESCRIPTIONS

### Northern Kentucky Forest Legacy Area

This region encompasses the counties of Anderson, Bath, Bracken, Campbell, Carroll, Carter, Clark, Elliot, Estill, Fayette, Fleming, Franklin, Gallatin, Garrard, Grant, Harrison, Henry, Jessamine, Lee, Lewis, Madison, Menifee, Mercer, Nicholas, Owen, Owsley, Pendleton, Powell, Robertson, Scott, Trimble, Wolfe, and Woodford.

Northern Kentucky is often referred as the Bluegrass Region. The highest population and urbanization areas in the state characterize this region (Louisville, Lexington and Cincinnati). The **Southern Forest Resource Assessment** quoted "at the periphery of the region in northern Kentucky and Virginia and along the gulf coast, FPD's (forest population density) were also relatively high in 1992".<sup>21</sup> Historically, this area attracted early settlers with its gently rolling topography, soils, canebrakes, and abundance of game. The Bluegrass Region is the center of the thoroughbred horse industry.

Physiographically, the northern Kentucky FLA covers the Inner and Outer Bluegrass region, the Knobs and the northern and eastern fringe of the Mississippian Plateau. This area is underlain with limestone and shales formed up to 450-500 million years ago. The number of known Kentucky caves is now estimated at over 6,700. These systems are excellent groundwater reservoirs, and they contribute to the rare, unusual, and unique elements of biodiversity. Cave systems are often simple ecosystems; however, they are vulnerable to pollutants that can be carried into the groundwater system from landfills, urban runoff, industrial urban and agricultural chemicals and sudden flushes of organic material from natural and human sources. This area encompasses the drainage basins of Tygarts and Little Sandy, Ohio, Licking, Salt and Kentucky River.

The open savanna-woodlands of blue ash, bur oak, and other trees were prominent with an understory of cane, wild grasses and legumes. Today, the savanna-woodlands as described by E.L. Braun have been reduced to a few remnants.<sup>6</sup> The riparian forests along slopes and ravines of the Kentucky, Salt and Licking rivers provide wildlife corridors and water quality protection. In the Licking River corridor, where globally imperiled aquatic fauna exist, the corridor could be enhanced by improved forest protection measures and along with the Kentucky River corridor and its significant tributaries.

### Eastern Kentucky Forest Legacy Area

This region encompasses the counties of Bell, Harlan, Knott, Knox, Letcher, Perry, Pike, and Whitley.

The Eastern Kentucky FLA lies in the Eastern Coalfield physiographic region. It is the southern portion of the Appalachian Plateau (Cumberland Mountains) that extends from New York to Alabama. This is a highly dissected area with steep valley walls and narrow sinuous valleys. The shales and sandstones of the steep slopes date back 300 million years. Cliffs of resistant sandstone cap the ridges. Wooded mountain slopes extend to the horizon in all directions. This area contains some the most extensive forest blocks in the state, and the condition is fair to good at many sites. Most of the rich, mixed forest have been logged and are



now in various stages of second and third growth. Subsurface and surface coal mining has been practiced for generations. The highest elevation in Kentucky is 4,150 feet at Black Mountain; major rivers are the Big Sandy, Licking, Kentucky and Cumberland.<sup>6</sup> Many endangered and threatened species occur here in terrestrial and subterranean systems, and some headwaters of Cumberland River, Kentucky River and Big Sandy River still have imperiled aquatic fauna.

Cumberland Gap was a key location along the Wilderness Trail of pioneers entering Kentucky. Settlement within these mountains has been largely restricted to valley bottoms and lower slopes. These settlements were mostly made by less wealthy people forging a subsistence based on small farms and forest resources, with little industry or trade. They made home sites on high benches in small remote hollows. The often farmed plots on steep slopes, though most of the land remained “unimproved”.

Some parts of the outer mountain ranges—Pine Mountain and Cumberland Mountain are now owned and protected by the federal and state governments along with the Kentucky Chapter of The Nature Conservancy. Blanton Forest, a 1,075 acres old growth forest on the south slope of Pine Mountain in Harlan County is one of the Commonwealth’s best examples of a protected old growth mixed mesophytic forest. The Eastern Kentucky FLA has the least amount of development and the largest contiguous forest stand. However, Black Mountain remains virtually without any land conservation protection efforts.

### **Southern Kentucky Forest Legacy Area**

This region encompasses the counties of Adair, Barren, Breckinridge, Bullitt, Butler, Casey, Clinton, Cumberland, Edmonson, Grayson, Green, Hardin, Hart, Jackson, Larue, Laurel, Lincoln, Meade, McCreary, Metcalfe, Ohio, Pulaski, Rockcastle, Russell, Taylor, Warren, and Wayne.

The Southern Kentucky FLA lies mostly within the Pennyroyal physiographic region that has a complex mosaic of forests and farmland. This region consists of a limestone plain characterized by tens of thousands of sinkholes, sinking streams, streamless valleys, springs and caverns. The term “karst” is used to define this type of terrain. There was some delay in farming the karst plains because of initial doubts and problems in converting the barrens. Meanwhile, the barrens became invaded by trees as fire frequency declined.

This area is composed of 27 counties in the Mississippi Plateau, eastern portion of the Western Kentucky Coalfield, and Southern Knobs regions of Kentucky. From west to east these counties represent some of the most diverse habitats in the state. The Mississippi Plateau provides the best example of how forests change between the eastern third of the state and the drier oak-hickory forests found farther west. The area from east to west contains critical habitat for several neotropical forest-dwelling songbirds, wild turkeys, black bear, whitetail deer, eastern cottontail rabbit, American woodcock, wood ducks, swamp rabbits, and wintering waterfowl.

The Kentucky Department of Fish and Wildlife Resources and The Nature Conservancy have identified the Big Barrens as core focus areas for wildlife habitat management. Both portions of the proposed area (and some of the surrounding counties) also were identified as a North

American Bird Conservation Initiative Bird Conservation Area within the Central Hardwoods Bird Conservation Region (BCR) to focus on core forested habitat around large blocks of forest. The proposed Legacy Area includes counties participating in Kentucky's Conservation Reserve Enhancement Program (CREP) and the county (Edmonson) containing most of Mammoth Cave National Park.

Converting croplands back to hardwood forests will provide habitat for numerous species of songbirds, wild turkeys, and many species of mammals, both common (e.g., white-tailed deer) and rare (e.g., Indiana bat). Planting trees will provide food, shelter, and travel corridors within the proposed area. Increasing the size of core forest area around Bernheim Forest and other large tracts of forest will help meet the objectives of the North American Bird Conservation Initiative for the area.

There are several watersheds in this region: Rolling Fork, Salt River, Green River, Rockcastle River, South Fork, Cumberland River. Riparian buffers along streams in these watersheds will reduce soil erosion and chemical runoff into streams, improve water quality, and benefit both aquatic and terrestrial wildlife that is threatened, declining, or of federal, state, and local concern.

#### **Western Kentucky Forest Legacy Area**

This region encompasses the counties of Ballard, Caldwell, Calloway, Carlisle, Christian, Crittenden, Fulton, Henderson, Hickman, Hopkins, Livingston, Logan, Marshall, McCracken, Muhlenberg, and Todd.

The Western Kentucky FLA covers the Shawnee Hills (or Western Coal Field) and Upper East Gulf Coastal Plain (or Jackson Purchase). Most of this region was acquired by the United States from the Chickasaw Indians in 1818, as the "Jackson Purchase".<sup>6</sup> This is the only systematic, grid based land survey in the establishment of Kentucky.

The Shawnee Hills have been highly degraded by farming and mining. On the broad bottomlands of Green River and its tributaries, a huge amount of swamp forest has been cleared, drained and converted to cropland since 1950. In recent decades, there has been extensive surface mining on higher ground. The remaining upland forests have been heavily cut over and have almost disappeared from the deeper soils. There are good opportunities to reforest large sections of river corridors and wetland complexes in this region. In addition to diverse ecological conditions, it supports several endangered or threatened species, including the rare copperbelly watersnake and Price's Potato Bean.

The Upper East Coastal Plain is made up of cretaceous, tertiary and quaternary deposits that are easily eroded. This part of Kentucky is typically flat and has numerous lakes, ponds, sloughs and swamps. Local relief is generally 100 feet, and the lowest spot in the state is 260 feet above sea level. After 1850-1860, most of the grassy barrens on upland plains became brushy as fire frequency declined, and a majority of the land was cleared for farming. There is an example of a small un-plowed piece of wet native grassland that has survived within the Lake Barkley Airport, near Paducah.

In Marshall and surrounding counties lies the best example of flatwoods that occur on poorly drained soils. The remaining bottomland forests have been affected by channelized streams or drained and cleared for farming along the Obion River and Mississippi floodplain. Even though, Land Between Lakes is not included in the Western Kentucky FLA, it is the most extensive forested area left in this region. The Kentucky Department of Fish and Wildlife Resources manage several wildlife management areas (WMAs) in the FLA. The wetland systems and adjacent upland forests form part of a highly significant corridor for migrating waterfowl and neotropical migrant birds.

# **FORESTRY LEGACY PROGRAM**

## **ASSESSMENT OF NEED (AON) PUBLIC MEETINGS**

**\* \* \***

**DECEMBER 2, 2002**

**PULASKI COUNTY COOPERATIVE EXTENSION OFFICE**

**SOMERSET, KENTUCKY**

**6:00 PM – 8:00 PM E.S.T.**

**\* \* \***

**DECEMBER 3, 2002**

**SALATO WILDLIFE EDUCATION CENTER**

**KY DEPT OF FISH & WILDLIFE RESOURCES**

**FRANKFORT, KENTUCKY**

**6:00 PM – 8:00 PM E.S.T.**

**\* \* \***

**JANUARY 14, 2003**

**MUHLENBERG CO AGRICULTURE & CONVENTION CENTER**

**POWDERLY, KENTUCKY**

**6:00 PM – 8:00 PM C.S.T.**

**FOREST LEGACY PROGRAM**  
**POLICY AND PROCEDURE FOR CONDUCTING PUBLIC MEETINGS**

As the lead agency, Kentucky Division of Forestry followed the public meeting guidelines set forth by the Kentucky Natural Resources and Environmental Protection Cabinet in order to conduct three public meetings to discuss the proposed Forest Legacy Areas in the Commonwealth of Kentucky. The public meets were advertised in the Lexington-Herald Leader and The Courier-Journal Newspaper. Also, state wide public new releases were issued. A draft copy of the Assessment of Need will be placed on the Kentucky Division of Forestry website for further public input.

## FOREST LEGACY PROGRAM AGENDA FOR ALL PUBLIC MEETINGS

### I. INTRODUCTION OF SPEAKERS

- A. Steven J. Kull, Assistant Director for Kentucky Division of Forestry
- B. Pamela R. Snyder, Program Coordinator for Forest Legacy, Forest Stewardship, KDF

### II. PURPOSE OF MEETING & INFORMATION ON FOREST LEGACY DISCUSSED

The purpose of this meeting is to gain input on the Forest Legacy Program that the State of Kentucky is embarking on. We hope to give you an insight on where the Stewardship committee is coming from and welcome your questions and comments concerning the development of the areas we will be discussing. In summary, at the end of this meeting, we want your input on anything you feel we may have missed, what things we may have overlooked, any comments, questions and suggestions. The more input we could get the more intelligent a decision we can make.

The Forestry Legacy program, established in 1995, is designed on a federal level to protect environmentally sensitive forested areas that are experiencing development pressures and are being threatened to convert to non-forest uses.

This voluntary program supports State & Federal efforts to protect environmentally important areas through direct acquisition and through conservation easements (purchased from willing landowners at fair market value) of partial interests in privately owned forestlands.

The federal government may fund up to 75 percent of program costs, with at least 25 percent coming from private or local sources.

In addition to gains associated with the sale or donation of property rights, many landowners may also benefit from reduced taxes associated with limits placed on land use.

Currently 31 states have adopted this program. Also current federal funding for this project is \$60 million.

Each state wanting to participate in the Forest Legacy Program must develop an AON. Gov. Paul Patton has designated the Kentucky Division of Forestry (KDF) as the lead agency for the State in the development of this program. KDF drafts the AON report with partnering agencies, the general public and state stewardship coordinating committee input. Partnering agencies include: USDA Forest Service, Natural Resources and Environmental Protection Cabinet, KY State Nature Preserves Commission, KY Department of Fish and Wildlife Resources, KY Division of Conservation, KY Nature Conservancy, KY Department of Parks, and KY Division of Water.

### III. ELIGIBILITY CRITERIA AND PROPOSED AREAS

In determining those areas to be eligible, the following is considered: scenic resources, public recreation opportunities, public education opportunities, riparian areas, wetlands, fish & wildlife habitat, native plant communities, connectivity to other significant areas and other protected lands, known threatened and endangered species, known cultural resources, and other ecological values.

The Kentucky Forest Stewardship Coordinating Committee has compiled a map that is divided into 4 proposed regions that have been selected as proposed Forest Legacy areas. (Map is passed out to those in attendance along with proposed region descriptions). These areas have been selected based on information pertaining to the criteria listed previously.

### IV. ATTENDEES' COMMENTS/ QUESTION AND ANSWER FORUM

**Forest Legacy Public Meeting #1  
Somerset, KY – December 2, 2002**

<u>Name</u>	<u>Organization</u>
Brian Gray	Kentucky Department of Fish and Wildlife Resources (KDFWR)
Keenan Turner	Cooperative Extension Service (CES)
Pam Snyder	Kentucky Division of Forestry (KDF)
Steve Kull	KDF
Lori White	KDF
Jeff Sole	The Nature Conservatory (TNC)
Mike Strunk	TNC/Pulaski County Conservation District
Jack Stickney	Kentucky Wild Rivers Association (KRWA)
Ben Perry	Appalachian Science Public Interest (ASPI)
Steve Beam	KDFWR
Heather Weese	Kentucky State Nature Preserves (KSNPC)

**MINUTES FROM DECEMBER 2, 2002 PUBLIC MEETING**

IS THIS ALL FOR PURCHASES IN THE FUTURE OR CAN ANYTHING BE LOOKED AT RETRO-ACTIVELY?

*The funding mechanism-the way the federal government in Legacy works-you propose the project and they commit the funding to that, so while it needs to be protected now, our funding mechanism won't be until we get the AON approved by the Secretary of the Department of Agriculture. It's not just making application to the program. We anticipate the committee will set up a time period to make application during the year, then we have a short time period to review all applicants and then the State Stewardship Committee actually has to rank those applicants. Usually it's the top 3 or 4 projects that they rank that go to a regional ranking (which would be the southern region-region 8 in Atlanta) for all the rankings in the south and then it actually goes into a national ranking criteria with all the programs. So it's not just an easy application guaranteeing that you're going to be funded with this project. It's a 'several step' process and then once it's ranked at the national level, they will try to actually fund your #1 top project in your state and then work down thru the whole national priority list. (Actually Congress does this). It's not necessarily a line item part of the congressional budget, the \$60M committed will designate that these particular projects are approved. So it's regionally then nationally getting your projects funded.*

SO IT SOUNDS LIKE WE'RE TALKING PRETTY MUCH ABOUT A MACRO-LEVEL OF PROPERTY, NOT 60 OR 70 SMALL PARCELS...

*It could be, for instance, a mega-site area with 2 or 3 land acquisitions or maybe 1 big project—it depends. We're not ruling out small areas whatsoever. There are some 2-acre tracts that need to be protected and so nothing will be ruled out whatsoever.*



*From what I know of – of projects that have been approved nationally, there are \$10M projects over 5 years that have been approved and there are \$500,000 projects that have been approved, so it's gonna be the way it's written up and it's gonna be the criteria used by the Stewardship committee and the creditability that we have. It will be difficult but not impossible. They don't simply divide \$60M by 31 states and everyone automatically gets their share. We have to compete nationally and some will get more and some less.*

THE STATE STEWARDSHIP COMMITTEE YOU'VE TALKED ABOUT—IS THAT FOR THE FOREST LEGACY ONLY?

*Actually it was set up for our State Stewardship program but when Forest Legacy came in—and that's part of co-op forestry, part of state of private that is a companion program somewhat to stewardship because it is management of lands and protection of lands—they, in the law, designated the Stewardship Committee which is already established in states, as being the consultants for this Forest Legacy program.*

SO THEY'RE GOING TO PRETTY MUCH BE THE DRIVING ENTITY IN WHAT AREAS ARE SELECTED.

*Yes, these groups are gonna make it go, they will make the criteria happen, and make the rankings happen, they're gonna make the application and justification go.*

SO THESE PEOPLE ARE ALL MEMBERS OF THE STATE STEWARDSHIP COMMITTEE? HOW MANY ARE THERE ON THE COMMITTEE?

*Yes, each agency has a designee, so around 18 members I think.*

WILL RANKING CRITERIA BASICALLY ADD UP AS A SCORING SYSTEM?

*Yes. We will have a basic score sheet type of a system that will get us started—kind of a first shot of which ones do we look at first—and anyone can make application and take it to the Committee. But ranking will give it a score. Based upon resources and connectivity to the various things I showed you earlier that would make it eligible. So I guess you could call that process the first cut. We will also look to see if there are other easements or ties that would keep us from protecting it like we need to –otherwise, equal ranking according to the resources. Of course, the more variety of resources, the higher the ranking it will get.*

BEARING IN MIND THE MORE CRITERIA, THE HIGHER THE RANKING, WHAT ABOUT A SMALL 2 ACRE AREA THAT MIGHT BE AN OLD INDIAN OR CIVIL WAR BURIAL GROUND?

*Or that 2 acres may be between a State Nature Preserve and a Forest Service property and major conservancy piece of land and by getting that 2 acres, we can assure that it's all protected—that type of thing—it's certainly worth looking at.*

SAY A NON-PROFIT GROUP PUTS UP 25PERCENT AND 75PERCENT IS FROM THE PROGRAM—WHOSE NAME IS IT IN WHEN IT IS ALL SAID AND DONE?

*That has to be worked out. Division of Forestry, as the lead agency, we are the ones but management or agency or the right person or group to manage that property may in fact, not be us and it could be designated to those to manage that property. There would be paperwork detailing how it would be managed and by whom.*

YOU SAID THE OTHER WAY TO PROTECT THE LAND WOULD BE CONSERVATION EASEMENTS. HAVE CONSERVATION EASEMENTS BEEN DONE?

*Kentucky Division of Forestry has not. Forest Legacy would be our first working in the conservation easements. There are a lot of challenges in conservation easements and management and making sure heirs provide what they need to their property, etc. But the idea is (1) We may not be able to get the property but it still needs to be protected and (2) limited funding and to be able to stretch that over a larger expanse with a larger area conservation easements may be the way to go over acquisition. Where you could buy 3 acres or get an easement for 50 acres for the same amount, and so easement's a way to make money go a little further, but still protect resources. Both options are available through Forest Legacy. The bottom line depends on what the landowner wants to do and one of the requirements in this program is the landowner must have a forest stewardship plan written on their property and they must follow that plan.*

CAN THERE BE SOMETHING LIKE A 5-YEAR RE-SUBMITTAL SHOULD AN AREA NOT INCLUDED IN THE PROPOSAL LATER BE ONE TO CONSIDER?

*There is no particular time line by which you can amend your assessment of need—it's just this short of an act of Congress in amending one, but it can be done. So if in fact we see it's not working for our State, the opportunity to amend it is there. You want to try to put as much flexibility in the program that you can. We have taken input from the states already in the program and they have shared their pitfalls and what worked and didn't work for them, so we've gotten several points from them and tried to incorporate that into the committee and give them that information. In working through committee-a lot of those members have worked in conservation 30+ years, so they are already talking for their constituents so their efforts and their knowledge base are right there. There's a lot to sift out—from census data, forested acreage, large forest block data, water quality issues, land use maps; this was all taken into consideration as these areas were drawn up.*

IN CLOSING, THIS PROCESS AND PUBLIC IN PUTTING AND SOLICITING AND WE'LL BE PUTTING THIS INFORMATION ON THE WEB FOR OTHER WAYS FOR PEOPLE TO COMMENT ON THE ASSESSMENT OF NEED AS WE DRAFT IT AND AS WE GET IT FURTHER DOWN THE ROAD, BUT IT'S OUR HOPE THAT BY THE SUMMER, WE'VE GOT SOMETHING SIGNED OFF SO AS QUICKLY AS POSSIBLE WE CAN GET INTO THE BUDGET PROCESS OF FIGHTING FOR THAT \$60M OR WHATEVER THE AMOUNT WILL BE AT THAT POINT.

**Forest Legacy Public Meeting #2  
Frankfort, KY – December 3, 2002**

<u>Name</u>	<u>Organization</u>
Steve Bonney	KDFWR
Emily Salt	University of Kentucky student
Robert Aubick	Landowner
Frank Young Mood	Landowner
Hugh Archer	Department for Natural Resources (DNR)
Shelby E. Riggs	Landowner
Stewart West	Landowner
Don Dott	KSNPC
Clay Goebeler	Heartwood
Susan Makosky	Environmental Biologist
Gene Reynolds	Retired Forester
Tim Sheehan	KDF
Jeff Sole	TNC

**MINUTES FROM DECEMBER 3, 2002 PUBLIC MEETING**

YOU SAID THE GOVERNOR DESIGNATED THE STATE DIVISION OF FORESTRY SERVICE AS THE LEAD AGENCY; IS THIS BASICALLY WHAT HAPPENS IN THE REST OF THE STATES ALSO—THE FOREST SERVICE IS DESIGNATED OR WHAT?

*Not in 100 percent of the states, but in the majority however, other agencies can be designated as the lead agency.*

ONCE THE LAND IS BOUGHT, WHOM DOES IT BELONG TO?

*It is bought within the program, it's Division of Forestry initially because it is the lead agency, however, it's our intention that the agency best able to manage that property for it's needs or intended use will be the caretaker of it. Whether it be Nature Conservancy, Fish & Wildlife, Nature Preserves Commission, depending on the values of that particular area and who's best able to see to those values.*

YOU SAY YOU'RE BUYING IT TO PROTECT IT; TO KEEP IT A FORESTLAND, BUT WHEN YOU REFER TO A 'WORKING FOREST', I ASSUME YOU'RE TALKING ABOUT LOGGING, CORRECT?

*The option is that it can be a working forest. It has to be a case by case basis—that is, what the need for the area is; timbering or logging is an option, depending on what the area is.*

I DON'T PARTICULARLY AGREE WITH THE WAY THE FOREST SERVICE IS RUNNING THE NATIONAL PARKS RIGHT NOW, I MEAN, IT SAYS UP TO 89 PERCENT OF THE

LAND THEY HAVE IS SUITABLE FOR LOGGING AND THEN YOU'RE GONNA BUY THIS LAND AND PROTECT IT, WHEN YOU'RE NOT PROTECTING THE LAND YOU ALREADY HAVE.

*We are not the U S Forest Service, we're State, however, I do understand your concern. The protection is from non-forest conversion, in other words, parking lots or whatever the situation may be. Conversion to non-forest use. If the area is able to be managed without it being part of the of the Stewardship committee's efforts on what the purpose or what the need is to protect the area, if there is a forest management opportunity there then it can amass that way or if there is a need not to do anything there, then it will be designated as such.*

SO IT WOULD HAVE TO BE LAND THAT IS GOING TO BE DEVELOPED INTO SUBDIVISIONS OR SOMETHING LIKE THAT—NOT JUST WILD LAND?

*The purpose of the Legacy program is protection of forestland from conversion, so we have to have that as a large part of the criteria on whether or not it's even eligible for the program. That's if the land is actually bought outright. If a conservation easement is put on that property then it is up to the landowner of what his or her goals are. If they want to have a working forest component, they can put that actually in the deed, or if they want to set it aside for total preservation purposes—whether that's recreation or wildlife, it is up to them what goes into that deed restriction and that can also mean restricting development on that property. So this is another option landowner's have other than land acquisition.*

IN ORDER TO BUY THE LAND UNDER THIS PROGRAM, IT DOESN'T HAVE TO BE LAND THAT IS IMMEDIATELY ABOUT TO BE DEVELOPED, DOES IT? I MEAN IT CAN JUST BE A NICE PIECE OF LAND THAT YOU JUST WANT TO PRESERVE, RIGHT?

*Right, but the more threatened, the more priority it will have. It adds more points in the ranking process.*

IS THIS A US FOREST PROGRAM THAT THE STATE IS JOINING?

*It is a federal program that the money is funneled through the U S Forest Service through state and private forestry; but basically the funds are passed down to the Division of Forestry in the Legacy program's Stewardship committee.*

IN LOOKING AT THE PROPOSED FOREST LEGACY AREAS ON YOUR MAP, IT INCLUDES AREAS AROUND THE DANIEL BOONE NATIONAL FOREST IN EASTERN KENTUCKY. SURELY THE LEGACY PROGRAM DOESN'T APPLY TO FEDERALLY OWNED PROPERTIES, SO IS THERE PRIVATELY OWNED PROPERTIES NEAR THE NATIONAL FOREST?

*Yes, there's a tremendous amount of private ownership within the national forest area. And the reason, there are areas in white (areas not included in the proposed Legacy Program) the U S Forest Service already has desires to acquire lands in this area from willing sellers, so there's already an opportunity for that forestland. So, the way the*

*committee looked at it—there's already opportunity there for that property, so Legacy funds should concentrate in other areas.*

OKAY, SO YOU'RE NOT TRYING TO COME UP WITH "A PROJECT" FOR THE WHOLE STATE OF KENTUCKY?

*No sir, we're not looking to buy 2,000 acres in XYZ county. We're looking for abilities to pick projects across the state within these shaded areas on the map, that will be protected and environmentally sensitive forested areas for various reasons.*

SO, YOU'RE GOING TO PUT A BASKET OF THOSE TOGETHER AND PRESENT THAT IN WASHINGTON AS—THESE ARE THE 12 OR 20 OR WHATEVER TOP PROJECTS, CORRECT?

*Yes. We will rank them 1,2,3,4,5... according to the most important to the State of Kentucky and we'll fight for funding for all 12 or 20 or however may the case may be.*

HOW MUCH OF THE LAND MUST BE FORESTED?

*Up to 25percent of the property can be non-forested.*

DO YOU HAVE AN ACRE LIMITATION ON IT?

*We don't have a minimum or a maximum on the acreage.*

IF YOU'RE RANKING UNDER ENVIRONMENTAL OR ECOLOGICAL PROBLEM, DO YOU STILL HAVE TO MEET THAT 25PERCENT NON-FORESTED OR COULD IT BE SAY 80PERCENT OPEN? EVEN IF A SIGNIFICANT CULTURAL VALUE?

*We have to stay within their guidelines. We will make a case if it's necessary for that type of thing and it may get approved or it may not.*

WHO INITIATES THE ACTION TO GET THIS STARTED—THE LANDOWNER OR THE AGENCY?

*Either one. We will have the application by which any individual or landowner or agency can make application to the Stewardship committee that is overseeing it, and they will judge that particular area; but anybody can make application.*

*To clarify, there will be a time frame that the Stewardship committee will have to set; probably early spring till maybe May to accept applications. We have to have enough time to be able to go out and do field visits and site inspections. Then the Stewardship committee has to meet and rank them. All this needs to be done before September or so, before they have to go to regional ranking in Atlanta. About 1½ years ahead, you need to know what projects you want for that upcoming federal fiscal year.*

ARE YOU PLANNING ON PUTTING OUT MORE PUBLICITY ABOUT THIS?

*This is our initial thrust for public input. We're going to draft up an assessment of need and put it out on the Web and make it as available as possible for the public to make comments on and get their input.*

IS THIS LIKE THE WETLAND RESERVE PROGRAM WHERE THE LANDOWNER WILL RETAIN THE TITLE TO THE LAND?

*Well, one portion of it can be if they do a conservation easement, they can retain title and just donate or sell off rights to that property to protect the forest; but there's also provisions by which the landowner can sell the property outright and then whatever agency becomes the manager of that property as discussed earlier.*

DO YOU HAVE ANY IDEA OF HOW MUCH YOU'RE GONNA HAVE TO HAVE PER ACRE, LIKE SO MUCH PER ACRE?

*No, there's no limit; there are some rules that has to meet federal guidelines and it has to be fair market value. They can ask for more than it's worth, but the Forest Legacy program, once the appraisals are done and so on, will not be able to offer more than it's worth basically.*

THE SITE I'M INTERESTED IN IS A LARUE CO. UNION ARMY LOCATION SITE BECAUSE IT IS A PART OF A CIVIL WAR CAMP WHICH IS ABOUT 50 ACRES AND OVER THE YEARS HAS BECOME MOSTLY FORESTED. WOULD THIS PROPERTY BE ELIGIBLE FOR THIS PROGRAM?

*It has the cultural resources and other significance that can make application to this program. Are you suggesting by saying it's mostly forested that in order to demonstrate that area for the value that it has, that some of the site be cleared to show the battle site and that type of thing? Because that would have to be worked out as the application is made.*

WELL, RIGHT NOW IT BELONGS TO A 90-SOMETHING YEAR OLD WOMAN AND I FEEL IT WILL PROBABLY BE UP FOR SALE IN THE NEAR FUTURE. SO THAT'S WHY I'M HERE TONIGHT TO GET INFORMATION.

*I understand it's an important resource that needs to be taken care of. There are maybe other opportunities or resources you may want to explore to retain this property until such time that the Legacy funds would become available.*

BUT IT COULD BE POSSIBLE TO QUALIFY THIS PROPERTY UNDER LEGACY GUIDELINES AT THAT TIME?

*It is possible. Just bear in mind the ranking process and how it all works. The more criteria, the higher the ranking.*

YOU SAID THE GROUND COULDN'T BE OVER 25 PERCENT OPEN LAND. IS THAT A HARD AND FAST RULE?

*That's the current rule.*

COULD YOU GET AN EXCEPTION?

*We haven't been involved enough to know yet whether you could, but we would certainly make the argument if we thought it was valuable enough for the State of Kentucky.*

DOES THE FORESTRY HAVE THE FINAL SAY?

*No, the committee has the final say. Forestry is just the agency that's suppose to get the committee and make sure everything goes. But the Stewardship committee makes the decisions. They do the rankings, submit the applications on a regional level and so on. We, the Forestry, are just kind of like the secretary of the group. We get it all together.*

WHEN ARE WE GONNA KNOW WHO THE COMMITTEE IS?

*Presently the Stewardship committee is represented by the various agencies discussed at the beginning of this meeting, along with some private folks and non-profits.*

WOULDN'T THE DEPARTMENT OF PARKS BE CONCERNED WITH THE PROPERTY I INQUIRED ABOUT IN LARUE COUNTY, AS WELL AS THE LEGACY PROGRAM ITSELF?

*Yes, and they are a member of the Stewardship committee but then they also participate in the Heritage Land Conservation Fund program too and they have abilities too through other avenues as well to be interested in property such as you described.*

IS AN EASEMENT AN ALL OR NOTHING PROPOSITION? IF YOU HAVE AN EASEMENT ON YOUR PROPERTY, DOES THAT FLAT OUT PROHIBIT CONSTRUCTION?

*An easement is a very individual type of document. It's between the stewardship committee and the landowner, values that Legacy wants to protect and what the landowner wants to do on the property and this has to mesh. It's very much an individualized document.*

*One of the things the program requires, which falls in line with the easement, is a Forest Stewardship Plan, a multi-resource management plan that can encompass wildlife management, forest management, recreation, watershed—all depends on what the landowner's interests are. Once it's written, the landowner must adhere to that plan. It can be upgraded as time goes by. Stewardship plans and Legacy go hand in hand. It's multi-resource and beneficial. They compliment each other to benefit the land.*

ARE THESE EASEMENTS IN PERPETUITY?

*Yes. We couldn't say it's protected unless that happened.*

SO IF ANYONE WANTED TO BREAK THE DEED, IT WOULD END UP IN COURT?

Yes.

WHEN WILL YOU ACTUALLY BE LOOKING FOR PROJECTS AND BE READY TO SUBMIT?

*Our estimate, depending on how long it takes to get approved from the Secretary of Agriculture; we'll start looking for projects this time next year we hope.*

WHAT DO YOU CONSIDER A FORESTED AREA?

*Right now, we don't know what Legacy's definition of a forested area is. We'll find out and let you know the answer. They may have made it broad enough to let the individual states and stewardship committee in those states develops their own definition of a forested area. And that being the case, we'll make sure to include it in the AON as well.*

*There is a web site you can go to for specifics of the Legacy program. It is [www.fs.fed.us/spf](http://www.fs.fed.us/spf) and then click on Forest Legacy program.*



**Forest Legacy Public Meeting #3  
Powderly, KY – January 14, 2003**

<u>Name</u>	<u>Organization</u>
Lori White	KDF
Scott Harp	KDFWR
Eric Williams	KDFWR
Chuck White	---
Heather Weese	KSNPC
Katie Wilding	KDF
Jeff Sole	TNC
Jim Aldrich	TNC

**MINUTES FROM JANUARY 14, 2003 PUBLIC MEETING**

**THE FORESTED AREAS—HOW ARE THEY DEFINED?**

*The legislature that enabled the Legacy program did not define—it's how the State wants to define it.*

**AND HOW ARE YOU LOOKING TO DO THAT?**

*Right now we're taking a lot of information from a biodiversity document from 1995; they have defined a lot of forested ecosystems within the state and that can be the open savannas to the eastern cedar glades to wetland hardwood forests. I tried to expand on it a little bit; basically on some the reasons why we've picked some of this area; for example, Henderson Co. is a potential site for a new Fish & Wildlife Waterfowl land acquisition piece of property. Fish & Wildlife fought hard to get Henderson Co. into it, so I've tried to expand things, but there is no national definition of guidelines for forestland and how we define it in the state.*

**COULDN'T YOU USE FIA DATA TO GATHER INFORMATION?**

*Part of the reason we can't use FIA data is because all 5 panels are not completed so the statistical analysis won't be correct.*

*Technically, under Federal guidelines that were revised in 1996, the whole property does not have to be in forested condition. It could be 25 percent not forested, which means that portions could be planted back to trees. It all depends on what goes into the forest stewardship plan, which they require for each property that comes into the program.*

HOW MUCH ACREAGE ARE WE REALLY TALKING ABOUT ON A PER YEAR BASIS AND WHAT'S THE GOAL?

*It depends totally on Congress. I mean, we could turn in a multi-thousand acre project or we could turn in 10 projects and maybe the project could be funded all at once or the full 10 projects funded. There is no set formula-it's project specific.*

SO THEY ACTUALLY PICK WHAT GETS DONE?

*Well, the rankings help.*

THE RANKING IS NATIONWIDE AND NOT JUST IN KENTUCKY?

*We're ranked in Kentucky, then we go to regional in Atlanta and from there nationally ranked. Usually, your top #1 project ranked by the State Stewardship committee and the regional ranking will be picked. Now you may send up 3 or 4 ranked projects but your #2 and on may not rank up very high regionally compared to other States. Bottom line is the more that the property has on it and what it can offer based on the eligible criteria the better it's gonna rank. So if you try to apply for a single interest, you're gonna get hurt on the ranking. I know traditionally, lands that have been located next to public lands, whether they were state or federal, tended to rank higher nationally because Congress is looking at how much the public can use the property and that's a growing trend within the national standards.*

WHAT RIGHTS ARE YOU PURCHASING IN CONSERVATION EASEMENTS?

*It will be deed specific, basically negotiations between us and the seller and we'll be going into it saying this is why we want it and this is what it will do for Kentucky. There are 2 separate applications--#1 fee simple, which is straight out land acquisition and #2 Conservation easement and it asks what rights you want to retain, and most landowners typically they want to keep the land in a forested condition. They want to keep it protected from development. A lot of the projects they're doing are multiple land holdings, not only within Forest Legacy areas, but they have gone further down in the prioritization that this is a critical habitat so they put in maybe a multiple land holding for 10-15 landowners and put the whole project in, so it just depends on how each state differs; depends on how you go after it.*

HERE IN THE WESTERN PART OF THE STATE, WE REALLY DON'T HAVE ANYONE PURCHASING CONSERVATION EASEMENTS—YOU KNOW—THEY'RE ALL LOOKING AT CRITICAL HABITAT AND I'VE TALKED TO SEVERAL LANDOWNERS THAT HAVE WOODLANDS THAT WOULD LOVE TO HAVE A CONSERVATION EASEMENT, BUT NOBODY'S WILLING TO PURCHASE IT. I THINK IT WOULD BE A MISTAKE TO DOWNGRADE THAT SIDE OF THE PROGRAM JUST BECAUSE, I KNOW OF COURSE EVERYBODY WANTS TO BUY PROPERTY AND PROTECT IT OURSELVES, BUT CONSERVATION EASEMENTS ARE JUST AS IMPORTANT.

*You're right, and we certainly didn't want to rule that out. If it's threatened for conversion and important to get, and easement's the way to get it, then there's certainly opportunity to do that.*

ARE THERE GOING TO BE ANY ACREAGE CAPS? I MEAN, ARE THEY FOLLOWING THE USUAL GUIDELINES THAT YOU CAN'T PAY ANY MORE THAN THE APPRAISED VALUE?

*That's right, no more than the appraised value; but there are no caps on acreage.*

YOU MENTIONED THAT TAKING SOME TIMBER OUT OF THE AREAS COULD BE AN OPTION; IS THAT AN OPTION THAT YOU WOULD DISCUSS WITH THE WHOLE COMMITTEE?

*Yes, the idea is that it's a working property. Harvesting, in our mind is not conversion.*

IT SEEMS LIKE YOUR ARGUMENT FOR WHY SPECIFIC AREAS ARE CHOSEN FOR THIS PROGRAM ARE POPULATION GROWTH, DEVELOPMENT AND HIGHWAYS AND HYPOTHETICALLY YOU COULD PICK ANY FIVE COUNTIES AND 2 OF THOSE FIVE WOULD PROBABLY QUALIFY UNDER THAT SAME CRITERIA I WOULD THINK.

*Basically, we sat down and looked at census data and what we know of our land cover types; here is what the gap determined from the urban tree and urban development which was little pink specs all over the map and some of it was, we just basically had to tell the committee the whole state could not be included, so something had to be left out.*

IF WE'RE LOOKING ON SMALL PARCELS, EVEN DOWN TO A ¼ ACRE; IF YOU'RE WILLING TO GO THAT SMALL WHY CAN'T YOU GO THAT SMALL WITHIN EACH COUNTY? I KNOW WEBSTER COUNTY AND HANCOCK COUNTY COULD USE A LOT OF WORK AND WOULD BENEFIT FROM THIS PROGRAM.

ARE YOU SUGGESTING WITHIN A COUNTY, THERE BE A ¼ TO A ½ THAT HAS A PRIORITY AREA?

*Yes, exactly. I mean, I know it would be an administrative nightmare to designate that. Yes, and that's really what it boiled down to and that's why I'm going to write into the Assessment of Needs that you can stretch the counties because we realize these areas don't follow county boundaries.*

WILL YOU HAVE A COMMENT PERIOD?

*We're going to put the Assessment of Needs on a web site and we're gonna take comments. So anything you feel strongly about, please comment and let us know.*

APPENDIX 1

FOREST LEGACY PROGRAM  
Letters of Authorization



COMMONWEALTH OF KENTUCKY  
OFFICE OF THE GOVERNOR

PAUL E. PATTON  
GOVERNOR

700 CAPITOL AVENUE  
SUITE 100  
FRANKFORT, KY 40601  
(502) 564-2611  
FAX: (502) 564-2517

May 25, 2001

Mr. Dale Bosworth  
Chief, U. S. Department of Agriculture Forest Service  
P. O. Box 96090  
Washington, D.C. 20090-6090

Dear Mr. Bosworth:

The Commonwealth of Kentucky will participate in the U. S. Department of Agriculture's Forest Legacy Program authorized under Section 1217 of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990.

I have designated the Natural Resources and Environmental Protection Cabinet's Division of Forestry as the lead agency to represent the Commonwealth of Kentucky. Please forward information and other pertinent materials to the Director, Division of Forestry, 627 Comanche Trail, Frankfort, Kentucky 40601. The telephone number is (502) 564-4496.

I am pleased that Kentucky will be part of this important forest conservation effort. Thank you for your support of state and private forestry programs.

Sincerely,

A handwritten signature of Paul E. Patton in dark ink, written over a white background.

Paul E. Patton

c: James E. Bickford





COMMONWEALTH OF KENTUCKY  
OFFICE OF THE GOVERNOR

PAUL E. PATTON  
GOVERNOR

700 CAPITOL AVENUE  
SUITE 100  
FRANKFORT, KY 40601  
(502) 564-2611  
FAX: (502) 564-2517

May 25, 2001

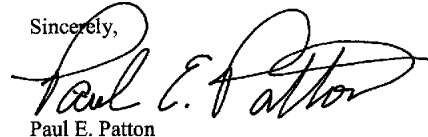
James E. Bickford, Secretary  
Natural Resources and  
Environmental Protection Cabinet  
Capital Plaza Tower, 5<sup>th</sup> Floor  
Frankfort, KY 40601

Dear Secretary Bickford:

The Commonwealth of Kentucky will participate in the U. S. Department of Agriculture's Forest Legacy Program authorized under Section 1217 of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990.

I hereby designate the Natural Resources and Environmental Protection Cabinet's Division of Forestry as the lead agency for the Forest Legacy Program.

Sincerely,



Paul E. Patton



AN EQUAL OPPORTUNITY EMPLOYER M/F/D

**APPENDIX 2****STATE FOREST STEWARDSHIP COORDINATING COMMITTEE**

Leah MacSwords, Director	KY Division of Forestry
C. Thomas Bennett, Commissioner Dan Figert, Ass't Director, Division of Wildlife Brian W. Smith, Grasslands Program Coordinator	KY Department of Fish & Wildlife Resources
David Sawyer, State Conservationist Tom Marcum, State Resource Conservationist	USDA Natural Resources Conservation Service
Steve Coleman, Director Sheila Vaughan, Financial Assistance Manager Shelly Graves, Grants and Contract Specialist	KY Division of Conservation
Dr. Jeff Stringer, Extension Specialist	UK Department of Forestry
Don Dott, Director	KY State Natures Preserves Commission
Benjamin Worthington, Forest Supervisor Marie Walker, Public Affairs Officer	Daniel Boone Nat'l. Forest
Jeff Hall, State Executive Director Joyce Hobbs, Conservation Program Specialist	USDA Farm Service Agency
Leslie Cole, Executive Director Erik Seigel, Ass't Executive Director Lola Lyle, Research Analyst	KY Environmental Quality Commission
Jody Lassiter, Commissioner	KY Department of Local Government
Bob Bauer, Executive Director	KY Forest Industries Association
Jerry Crow, Hardwood District Forester	MeadWestvaco Corp.
Rowland V. Beers, President	League of Kentucky Sportsmen
Peter T. McNeil	Forest Landowner
Dick Brantigan, President Chris Will, Secretary/Treasurer	KY Association of Consulting Foresters
Pat Henderson, President	KY Association of Conservation Districts
Joe Ball, President Herb Loyd	KY Woodland Owners Association
Judith McCandless	KY Conservation Committee
Jeff Pratt, Director Corrine Wells, Program Coordinator, Nonpoint Source Pollution	KY Division of Water

## **APPENDIX 3**

### **Landowner Applications, Landowner Inspection Consent Form and Landowner Application Checklist**

**LANDOWNER APPLICATION**  
**Phase 1 – Initial contract document**

**KENTUCKY'S FOREST LEGACY PROGRAM**  
**FEE SIMPLE APPLICATION**

SITE NAME: \_\_\_\_\_ TOTAL ACREAGE: \_\_\_\_\_

COUNTY: \_\_\_\_\_

LANDOWNER(S): \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

**PROPERTY INFORMATION:**

Legal Description: \_\_\_\_\_ Agent: \_\_\_\_\_

County: \_\_\_\_\_ Tax Map #: \_\_\_\_\_

Assessor's Plat and Lot Numbers: \_\_\_\_\_

Deed Reference (Book and Page Number): \_\_\_\_\_

Current Local Zoning Where Property Is Located: \_\_\_\_\_

(Include minimum lot size and road frontage requirements): \_\_\_\_\_

Current tax valuation or recent appraisal (attach if available)

Property's Total Forested Acres: \_\_\_\_\_

Forested Acres of Tract Offered for Forest Legacy: \_\_\_\_\_

Acres of Cleared/Open Land: \_\_\_\_\_

Directions to Property: \_\_\_\_\_

**FOREST TYPES:** (Check all that apply)

Bottomland Hardwoods: \_\_\_\_\_

Upland Hardwoods \_\_\_\_\_

Natural Pine: \_\_\_\_\_

Pine Plantation: \_\_\_\_\_

Mixed Pine/Hardwoods: \_\_\_\_\_

Other: \_\_\_\_\_

**WATER RESOURCES:** (Check all that apply)

Rivers and Creeks \_\_\_\_\_

Names: \_\_\_\_\_

Lakes and Ponds \_\_\_\_\_

Sizes: \_\_\_\_\_

Wetlands \_\_\_\_\_

Sizes: \_\_\_\_\_

Others: \_\_\_\_\_

List: \_\_\_\_\_



**LANDOWNER APPLICATION**  
**Phase 1 – Initial contract document**

**KENTUCKY'S FOREST LEGACY PROGRAM**  
**FEE SIMPLE APPLICATION**

**ENVIRONMENTALLY IMPORTANT FEATURES:** (Use additional sheets if needed)

NATURAL COMMUNITIES: \_\_\_\_\_  
\_\_\_\_\_

RARE PLANT OR ANIMAL SPECIES: \_\_\_\_\_  
\_\_\_\_\_

UNUSUAL LANDFORMS: \_\_\_\_\_  
\_\_\_\_\_

SCENIC FEATURES/PUBLIC RESOURCES \_\_\_\_\_  
\_\_\_\_\_

**ADJACENT LAND OWNERSHIPS:**

FEDERAL \_\_ STATE \_\_ FOREST INDUSTRY \_\_ PRIVATE \_\_ OTHER \_\_\_\_\_

**LANDOWNER EVALUATION QUESTIONS:** (Use additional sheets if needed). The Forest Stewardship Coordinating Committee evaluates and scores each landowner application. The landowner evaluation questions should be filled out to provide the Forest Stewardship Coordinating Committee further property details.

- 1) Are you willing to sell your property? \_\_\_\_\_
- 2) Do you have clear title to your property (No outstanding partial Interest Rights)? \_\_\_\_\_  
\_\_\_\_\_
- 3) How would you rate the threat of conversion of your forestland? \_\_\_\_\_
- 4) How would you describe the county population change in the last 5 years? \_\_\_\_\_
- 5) How would you rate the conversion of forestland in your county in the last 10 years? \_\_\_\_\_
- 6) Does your property fall within a high development area i.e. highway corridor, waterfront or mountain top? \_\_\_\_\_
- 7) Do you currently manage your timber/forestland? \_\_\_\_\_
- 8) Do you currently manage your wildlife resources on your property? \_\_\_\_\_
- 9) What are the soil and water resources on your property i.e. wetlands, highly erodible soils present? \_\_\_\_\_
- 10) Does your property have any significant recreational assets i.e. lake or hunting? \_\_\_\_\_  
\_\_\_\_\_
- 11) Does your property have any significant cultural or historical resources? \_\_\_\_\_
- 12) How would you describe the ecosystem integrity of your property? \_\_\_\_\_
  - a) size and connectivity of forestland tract? \_\_\_\_\_
  - b) threats to forest health (exotic species, diseases and fire)? \_\_\_\_\_
  - c) Late Successional Species Present? \_\_\_\_\_

**LEINS AND ENCUMBRANCES**

List any and all liens and encumbrances on the property proposed for enrollment in the Forest Legacy Program. Examples: mineral rights, utility easements (gas lines, power line), public rights of way, water flow or use restrictions, septic systems or water easements, deed restrictions, tax liens, etc.  
The information provided above is true to the best of my/our knowledge and belief.

**ALL TITLEHOLDERS MUST SIGN.**

**PRINT NAME(S)**

**SIGNATURE**

**DATE**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Disclaimer: All property accepted into the Forest Legacy Program is based on appraisal values meeting federal standards. At least 25 percent of the total acreage of the landowner's property must fall into a designated forest legacy area.

Send this Fee Simple Application, Landowner Inspection Consent Agreement, and  
Landowner Application Check List Material (aerial photograph, Maps etc.)

To:

Kentucky's Forest Legacy Program  
Kentucky Division of Forestry  
627 Comanche Trail  
Frankfort, KY 40601

**FOR OFFICE USE ONLY**

Received by: \_\_\_\_\_ Application Number: \_\_\_\_\_

Date: \_\_\_\_\_

**COMMONWEALTH OF KENTUCKY  
FOREST LEGACY PROGRAM**

**Landowner Inspection Consent Agreement**

I, \_\_\_\_\_ as the landowner or the landowner's authorized agent (proof of authorization must accompany this document) agree to allow inspection, appraisal, and survey of my property being offered for consideration under the Forest Legacy Program. I agree to allow members of the Kentucky Division of Forestry or their designated staff to inspect the property as may be required at any time. I shall be notified in advance of all inspection visits.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature of Landowner(s) or Agent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kentucky Division of Forestry

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

**FOR OFFICE USE ONLY**

Received by: \_\_\_\_\_ Application Number: \_\_\_\_\_

Date: \_\_\_\_\_

**COMMONWEALTH OF KENTUCKY  
FOREST LEGACY PROGRAM**

**Landowner Application Check List**

With your Fee Simple application or Conservation easement application, please submit four copies of the following for each contiguous parcel:

- \_\_\_\_\_ Completed fee simple application or conservation easement application
- \_\_\_\_\_ Name(s) and address(es) of other owner(s) of record for this tract
- \_\_\_\_\_ Signed Landowner Inspection Consent agreement
- \_\_\_\_\_ Copy of road map indicating property location
- \_\_\_\_\_ Copy of plat or survey map of the property
- \_\_\_\_\_ Copy of Aerial photo (may be obtained through your local Farm Services Agency County Office)
- \_\_\_\_\_ Legal Description (if available)
- \_\_\_\_\_ List of existing permanent improvements on the property, including houses, barns, lakes, ponds, dams, wells, roads, and other structures, and the total number of acres occupied by improvements.
- \_\_\_\_\_ Map identifying all dams, dumps, or waste disposal sites on the property (if available).
- \_\_\_\_\_ Forest Stewardship Plan or Forest Management Plan

**Disclaimer:** All materials submitted with application are not returnable. Disclosure of this information is voluntary: however, failure to comply may result in this form not being processed.

**FOR OFFICE USE ONLY**

Received by: \_\_\_\_\_ Application Number: \_\_\_\_\_

Date: \_\_\_\_\_

**LANDOWNER APPLICATION**  
**Phase 1 – Initial contract document**

**KENTUCKY'S FOREST LEGACY PROGRAM**  
**CONSERVATION EASEMENT APPLICATION**

SITE NAME: \_\_\_\_\_ TOTAL ACREAGE: \_\_\_\_\_

COUNTY: \_\_\_\_\_

LANDOWNER(S): \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

**PROPERTY INFORMATION:**

Legal Description: \_\_\_\_\_ Agent: \_\_\_\_\_

County: \_\_\_\_\_ Tax Map #: \_\_\_\_\_

Assessor's Plat and Lot Numbers: \_\_\_\_\_

Deed Reference (Book and Page Number): \_\_\_\_\_

Current Local Zoning Where Property Is Located: \_\_\_\_\_

(Include minimum lot size and road frontage requirements): \_\_\_\_\_

Current tax valuation or recent appraisal (attach if available)

Property's Total Forested Acres: \_\_\_\_\_

Forested Acres of Tract Offered for Forest Legacy: \_\_\_\_\_

Acres of Cleared/Open Land: \_\_\_\_\_

Directions to Property: \_\_\_\_\_

**FOREST TYPES:** (Check all that apply)

Bottomland Hardwoods: \_\_\_\_\_ Upland Hardwoods \_\_\_\_\_

Natural Pine: \_\_\_\_\_ Pine Plantation: \_\_\_\_\_

Mixed Pine/Hardwoods: \_\_\_\_\_ Other: \_\_\_\_\_

**WATER RESOURCES:** (Check all that apply)

Rivers and Creeks \_\_\_\_\_ Names: \_\_\_\_\_

Lakes and Ponds \_\_\_\_\_ Sizes: \_\_\_\_\_

Wetlands \_\_\_\_\_ Sizes: \_\_\_\_\_

Others: \_\_\_\_\_ List: \_\_\_\_\_

**LANDOWNER APPLICATION**  
**Phase 1 – Initial contract document**

**KENTUCKY'S FOREST LEGACY PROGRAM**  
**CONSERVATION EASEMENT APPLICATION**

**ENVIRONMENTALLY IMPORTANT FEATURES:** (Use additional sheets if needed)

NATURAL COMMUNITIES: \_\_\_\_\_  
\_\_\_\_\_

RARE PLANT OR ANIMAL SPECIES: \_\_\_\_\_  
\_\_\_\_\_

UNUSUAL LANDFORMS: \_\_\_\_\_  
\_\_\_\_\_

SCENIC FEATURES/PUBLIC RESOURCES: \_\_\_\_\_  
\_\_\_\_\_

**ADJACENT LAND OWNERSHIPS:**

FEDERAL \_\_ STATE \_\_ FOREST INDUSTRY \_\_ PRIVATE \_\_ OTHER \_\_\_\_\_

It is important that the following section be carefully and fully completed. The information you supply will directly affect the desirability of the property as well as its appraised value and therefore, the ranking. Note that checking "YES" does not limit your ability to negotiate price and options in the future; it merely assists the State Forest Stewardship Coordinating Committee when evaluating your property. Indicate which of the following interests you desire to retain. Note by checking "YES" should indicate the rights you as the landowner(s) want to retain.

YES	MAYBE	NO	
_____	_____	_____	Timber and wood product rights
_____	_____	_____	No public access
_____	_____	_____	Hunting
_____	_____	_____	Fishing
_____	_____	_____	Camping
_____	_____	_____	Hiking or other passive recreation
_____	_____	_____	Bicycling
_____	_____	_____	Horseback riding
_____	_____	_____	Construction of roads
_____	_____	_____	Motorized access

**LANDOWNER APPLICATION**  
**Phase 1 – Initial contract document**

**KENTUCKY'S FOREST LEGACY PROGRAM**  
**CONSERVATION EASEMENT APPLICATION**

YES	MAYBE	NO	
_____	_____	_____	Expansion of existing improvements
_____	_____	_____	Mushroom/Ginseng/Craft Material Collection
_____	_____	_____	Other: _____

**LANDOWNER EVALUATION QUESTIONS:** (Use additional sheets if needed). The Forest Stewardship Coordinating Committee evaluates and scores each landowner application. The landowner evaluation questions should be filled out to provide the Forest Stewardship Coordinating Committee further property details.

- 1) Are you willing to place a conservation easement on your property? \_\_\_\_\_
- 2) Do you have clear title to your property (No outstanding partial Interest Rights)? \_\_\_\_\_
- 3) How would you rate the threat of conversion of your forestland? \_\_\_\_\_
- 4) How would you describe the county population change in the last 5 years? \_\_\_\_\_
- 5) How would you rate the conversion of forestland in your county in the last 10 years? \_\_\_\_\_
- 6) Does your property fall within a high development area i.e. highway corridor, waterfront or mountain top? \_\_\_\_\_
- 7) Do you currently manage your timber/forestland? \_\_\_\_\_
- 8) Do you currently manage your wildlife resources on your property? \_\_\_\_\_
- 9) What are the soil and water resources on your property i.e. wetlands, highly erodible soils present? \_\_\_\_\_
- 10) Does your property have any significant recreational assets i.e. lake or hunting? \_\_\_\_\_
- 11) Does your property have any significant cultural or historical resources? \_\_\_\_\_
- 12) How would you describe the ecosystem integrity of your property? \_\_\_\_\_
  - a) size and connectivity of forestland tract? \_\_\_\_\_
  - b) threats to forest health (exotic species, diseases and fire)? \_\_\_\_\_
  - c) Late Successional Species Present? \_\_\_\_\_

**LEINS AND ENCUMBRANCES**

List any and all liens and encumbrances on the property proposed for enrollment in the Forest Legacy Program. Examples: mineral rights, utility easements (gas lines, power line), public rights of way, water flow or use restrictions, septic systems or water easements, deed restrictions, tax liens, etc.  
 The information provided above is true to the best of my/our knowledge and belief.

**ALL TITLEHOLDERS MUST SIGN.**

PRINT NAME(S)	SIGNATURE	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____

Disclaimer: All property accepted into the Forest Legacy Program is based on appraisal values meeting federal standards. At least 25 percent of the total acreage of the landowner's property must fall into a designated forest legacy area.

Send this Conservation Easement Application, Landowner Inspection Consent Agreement, and Landowner Application Check List Material (aerial photograph, Maps etc.)

To:

Kentucky's Forest Legacy Program  
Kentucky Division of Forestry  
627 Comanche Trail  
Frankfort, KY 40601

FOR OFFICE USE ONLY

Received by: \_\_\_\_\_ Application Number: \_\_\_\_\_

Date: \_\_\_\_\_



## APPENDIX 4

### FOREST LEGACY PROGRAM PROJECT PROPOSAL EVALUATION FORM DIRECTIONS

Members of the State Forest Stewardship Coordinating Committee will complete the Project Proposal Evaluation form for every proposed tract. The selected tracts will be submitted to the U.S. Forest Service for funding based on readiness, threatened, strategic and confirmation of important values.

Reviewers responsible for completing the Evaluation Form should have access to aerial photos, plats, topo maps, property descriptions, and the landowner to aid in the evaluation process. Following is an explanation of how to complete the evaluation form.

**Application Number** – Use the number found on the original application.

**Forest Legacy Area** – Name the Legacy Area in which the evaluated tract is located.  
The Form is divided into 4 Primary Categories and Definitions:

- I. **Readiness** - Indicates level of commitment and likelihood that project can be completed in a predictable timeline. Include elements such as an appraisal, purchase and sale agreement, an option to purchase, anticipated cost-share level, contributing partners and indications of local support.
- II. **Threatened** – Conversion to non-forest uses is likely or imminent and will result in a loss of forest values and public benefits.
- III. **Important** – The public benefits gained from the protection of the property including the ecological assets and the economic and social aspects.
- IV. **Strategic** – Fits with a larger conservation plan strategy, initiative and enhances previous conservation investments.

Category III. **Important** is further divided into 8 sub-categories:

- A. **Timber Management/Productivity**
- B. **Wildlife Resources**
- C. **Protected Species/Endangered Communities**
- D. **Soil & Water Resources**
- E. **Public Recreation Opportunities**
- F. **Scenic Resources**
- G. **Cultural Resources**
- H. **Ecosystem Integrity**

Each Category (except for **Important**) and sub-Category listed above has an associated point total range and a list of considerations to be taken into account by the reviewer when assigning points to that category/sub-category. The reviewer should account for each of the considerations when deciding on the point total for each category/sub-category but be aware that each consideration does not have an assigned point value. This allows for flexibility on the part of the reviewer if a tract is outstanding in relation to particular considerations but is lacking in others.

Under **Ready** an answer of “No” to the first consideration automatically disqualifies the application and the reviewer can end the evaluation.

For the other 3 categories, the reviewer can use the “Comments” column to make whatever notes necessary to help in scoring and points associated with any consideration can be placed in the “Score” column. Total points for any category should be placed in the highlighted box within the “Score” column. For example, up to 90 total points for the **Threatened** category should be placed in the highlighted box under the “Score” column. For the Category III.

**Important**, total points for each sub-category should be placed in the “Score” column in the highlighted box at the end of each sub-category. For example, in the sub-category **A. Timber Management/Productivity**, up to 15 points should be placed in the highlighted box.

All subtotal boxes (**II. Subtotal – IV. Subtotal**) then will be summed to get the **Total Score** at the bottom of the page.

## Phase 2 – Detailed Application and Evaluation Form Instruction Sheet

### FOREST LEGACY PROGRAM PROJECT PROPOSAL EVALUATION FORM Page 1 of 2

Application Number: \_\_\_\_\_

Forest Legacy Area: \_\_\_\_\_

<b>I. READY</b>	<b>"No" answer to the first question disqualifies application</b>	
Willing Seller(s)	Yes	No
25% Matching Funds Available	Yes	No
Clear Title(No outstanding partial Interest Rights)	Yes	No
Does proposed property satisfy the criteria used to establish the FLA containing the tract	Yes	No
Relative Costs		
Price (Per Acre & Total)		
Other Matching Funds Available	Yes	No
If yes, what percentage		
<b>II. THREATENED (0-90 Points)</b>	<b>Comments</b>	<b>Score</b>
Parcel Currently for Sale on the Open Market		
% Change in County Population Last 5 Years		
% Change in Per Acre Real Estate Value Last 5 Years		
% Change in Forested Land in County Last 10 Years		
High Development Potential (e.g. highway corridor, waterfront, mountain top)		
<b>III. IMPORTANT (0-90 Points)</b>	<b>Comments</b>	<b>Score</b>
<b>A. Timber Management/Productivity (0-15 Points)</b>		
Soil productivity will produce quality timber products		
Growing timber stock present		
Forest products can be easily transported to user		
Timber is accessible		
Diversity of age classes & timber type		
<b>B. Wildlife Resources (0-15 Points)</b>		
Diversity of habitats on property		
Significant habitats and/or species present		
Wetlands present		
Active management to enhance wildlife habitat		
Connectivity		
<b>C. Protected Species/Endangered Communities (0-15 Points)</b>		
Known occurrence of RTE communities or species of plants &/or animals		
Habitats suitable for reoccupation by, or harboring of,		

RTE species present		
<b>D. Soil &amp; Water Resources (0-15 Points)</b>		
Total # of acres of bottomland/wetland forest		
Total length of forest/wetland interface		
Steep slopes &/or highly erodible soils present		
<b>E. Public Recreation Opportunities (0-5 Points)</b>		
Public has access		
Proximity to a population center		
Significant recreational assets (e.g. lake, hunting available)		
<b>F. Scenic Resources (0-5 Points)</b>		
Public visibility		
Unique/unusual features		
<b>G. Cultural Resources (0-5 Points)</b>		
Site contains significant cultural or historical resources		
<b>H. Ecosystem Integrity (0-15 Points)</b>		
Size of tract		
Connectivity to other protected lands		
Threats to Forest Health (exotic species, diseases, fire)		
Late Successional Species Present		
<b>IV. STRATEGIC (0-20 Points)</b>	<b>Comments</b>	<b>Score</b>
25% Matching Funds donated by willing seller		
Synergy of primary categories		
Potential for initiating other conservation projects		
Cost-sharing or bargain sale		
Manageability		
Educational opportunities		
Fee simple purchase		
<b>TOTAL SCORE</b>		